

Service Manual

Vol. 1

DVCPRO

DVCPRO Camera Recorder

AJ-D800E/EN

Sec. 1 *Operating Instructions*

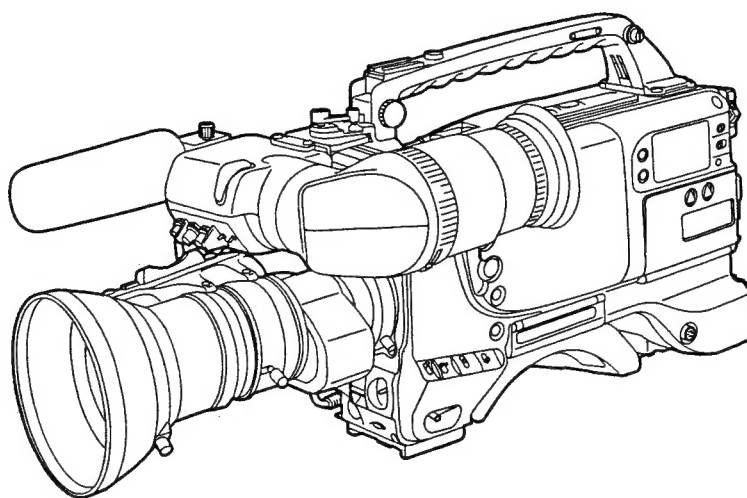
Sec. 2 *Maintenance & Disassembly Procedures*

Sec. 3 *Mechanical Adjustments*

Sec. 4 *Electrical Adjustments*

Sec. 5 *Block Diagrams*

Sec. 6 *Exploded Views & Parts List*



Panasonic

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products deal with in this service manual by anyone else could result in serious injury or death.

INTRODUCTION

This service manual contains technical information which allow service personnel to understand and service the DVCPRO Camera Recorder AJ-D800.

Specifications

General

Power supply voltage:	DC 12 V
Power consumption:	24 W

Operating temperature:	0°C to 40°C
Storage temperature:	−20°C to 60°C
Operating humidity:	Less than 85% (relative humidity)
Continuous operating time:	Approx. 90 min. (using 1 Anton Bauer Trimpac 14 battery)
Weight:	Approx. 5.85 kg (incl. main unit, viewfinder, lens, battery pack, tape and microphone)
Dimensions (W×H×D):	119.2×255.5 (incl. handle)×326.3 mm

Camera Section

Pick-up devices:	2/3-inch on-chip IT type of CCD
System:	RGB 3-CCD system
Picture elements:	480,000 pixel
Spectral system:	F1.4 prism system
Built-in filters:	1; 3200K 2; 5600K+1/4 ND 3; 5600K 4; 5600K+1/16 ND
Quantization:	10-bit A/D (R, G and B channels), 14.4 MHz
Digital signal processing:	16-bit length operation, 14.5 MHz/29.0 MHz
Programmable gains:	3 positions can be set from among −3, 0, 3, 6, 9, 12, 15, 18, 21, 24 and 30 dB.
Shutter speeds:	1/60, 1/120, 1/250, 1/500, 1/1000 and 1/2000 sec. Synchro scan mode; 1/50.5–1/252.0 sec.
Lens mount:	2/3" Bayonet type
Sensitivity:	F8 (2000 lux, 89.9% reflection)
Minimum subject brightness:	2 lux (F1.4, +30 dB)
Image S/N ratio:	60 dB (typical)
Horizontal resolution:	750 lines (centre)
Vertical resolution:	450 lines (normal mode)/500 lines (Super V mode)
Registration:	Below 0.03% (entire range) (excl. lens)
Geometric distortion:	Below measurable limit (excl. lens)

Viewfinder

CRT:	1.5" monochrome
Resolution:	600 lines (centre)

Specifications

VTR Section

VTR Video System (during playback on a standard playback unit)

Bands:	Brightness; 25 Hz to 5.75 MHz +1.0 dB/−3.0 dB
S/N ratio:	55 dB
K factor (2T pulse):	Within 2%
Y/C delay:	Within 20 ns

VTR Audio System (during playback on a standard playback unit)

Sampling frequency:	48 kHz (synchronized to video)
Quantization:	16-bits/sample
Frequency response:	20 Hz to 20 kHz±1.0 dB (at reference level)
Dynamic range:	85 dB or more (at 1 kHz, AWTD)
Distortion:	Within 0.1% (at 1 kHz, operating level)
Wow/flutter:	Below measurable limit
Head room:	18 dB
Emphasis:	T1=50 µs, T2=15 µs (can be turned ON/OFF)

VTR Tape Running System

Tape speed:	33.854 mm/s
Recording/playback time:	Approx. 63 min. (using the AJ-P63MP)
FF/REW time:	Approx. 3 min. (using the AJ-P63MP)

Connectors

Input

AUDIO IN CH1/CH2 (XLR, 3-pin, female):	MIC/LINE switchable MIC; Menu setting to −60/−50/−40 dBu LINE; Menu setting to −6/0/+4 dBu
MIC IN (XLR, 3-pin, female):	Menu setting to −60/−50/−40 dBu, balanced 3 kohm
GENLOCK IN (BNC):	1.0 Vp-p, 75 ohm
TIME CODE IN (12-pin):	0.5 to 18 Vp-p

Output

CAMERA OUT (BNC):	1.0 Vp-p, 75 ohm
VIDEO OUT (BNC):	1.0 Vp-p, 75 ohm
AUDIO OUT (XLR, 3-pin, male):	0 dBu, balanced, low-impedance (Menu setting to CH1/CH2/MIX)
AUDIO CH1/CH2 OUT (12-pin, TC IN/OUT combined):	−20 dBu, unbalanced, low-impedance
VTR (26-pin, option):	
TIME CODE OUT (12-pin):	1.0 Vp-p
PHONES (mini-jack):	

Other

DC IN (XLR, 4-pin, male):	DC 11 to 17 V
DC OUT (4-pin):	DC 11 to 17 V, maximum rated current; 0.1 A
LENS (12-pin):	
REMOTE [OPTION (ECU), 6-pin]:	

Accessories

- Shoulder belt (1)
- Sony battery connector, NP-1 screw
- Video input connector (1)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Related Components

Power supply related

AU-BP220, AU-BP402 battery packs
AG-B425 battery charger (for charging the AU-BP220 and AU-BP402 battery packs)
AU-M402H battery case
AU-B110 AC adaptor

Video cassette tapes

AJ-P12MP, AJ-P23MP, AJ-P33MP, AJ-P63MP metal tapes

Viewfinder

5-inch viewfinder

External VTR-related

Portable video cassette recorder
AJ-YA710P time code input/output/video input adaptor
AJ-YA700P 26-pin output connector (for connecting an external VTR to the 26-pin interface)
AJ-EC2/AQ-EC1 extension control unit
Connection cables

- for connecting an external VTR to the 26-pin interface
- for connecting an external VTR to the 14-pin/26-pin interface
- SHAN-C12TCA multi connector cable

Audio components

AJ-MC700P microphone kit
Stereo microphone
AJ-MH700P microphone holder

Maintenance products

AJ-CL12MP cleaning tape
AJ-SC700 soft carrying case
SHAN-B700 carrying case
SHAN-RC700 rain cover

For your safety

■ DO NOT REMOVE PANEL COVER BY UNSCREWING.

To reduce the risk of the electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

Lithium Battery

Warning

The lithium battery in this equipment must only be replaced by qualified personnel. When necessary, contact your local Panasonic supplier.

"The lithium battery is a critical component (type number CR2032 manufactured by Panasonic).

It must never be subjected to excessive heat or discharge. It must therefore only be fitted in equipment designed specifically for its use.

Replacement batteries must be of the same type and manufacturer. They must be fitted in the same manner and location as the original battery, with the correct polarity connections observed.

Do not attempt to re-charge the old battery or re-use it for any other purpose. It should be disposed of in waste products destined for burial rather than incineration."

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

VARNING

Explosionsfara vid felaktigt batteribyte.

Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kasserat använt batteri enligt fabrikantens instruktion.

ADVARSEL!

Eksplodingsfare ved fejlagtig håndtering.

Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

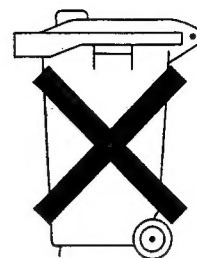
VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.

Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

Attention/Attentie

- Batteries are used for the main power source and memory back-up in the product.
At the end of their useful life, you should not throw them away.
Instead, hand them in as small chemical waste.
- Voor de primaire voeding en het reservegeheugen van het apparaat wordt gebruikgemaakt van een batterij.
Wanneer de batterij is uitgeput, mag u deze niet gewoon weggooien, maar dient u deze als klein chemisch afval weg te doen.

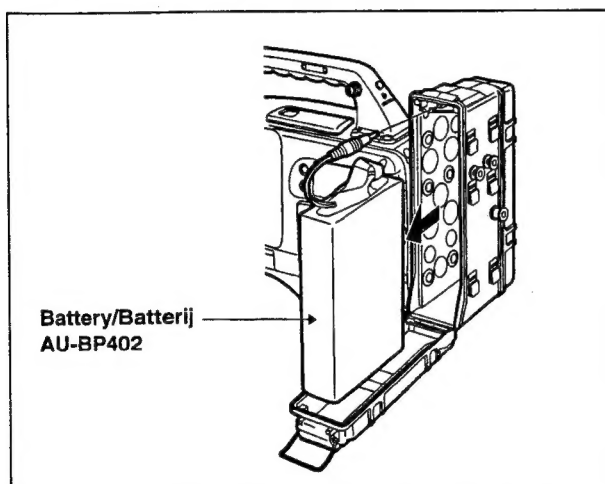


To remove the battery/Verwijderen van de batterij

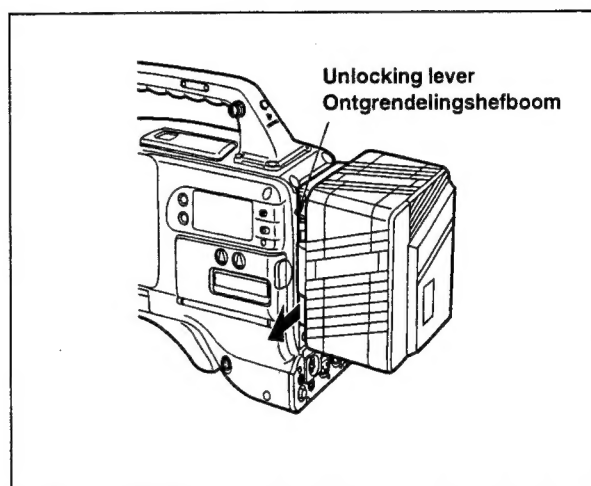
Main Power Battery (Ni-Cd Battery)

Batterij Voor Primaire Voeding (Nikkelcadmiumbatterij)

Battery/Batterij AU-BP402



Anton/Bauer Battery
Anton/Bauer-Batterij

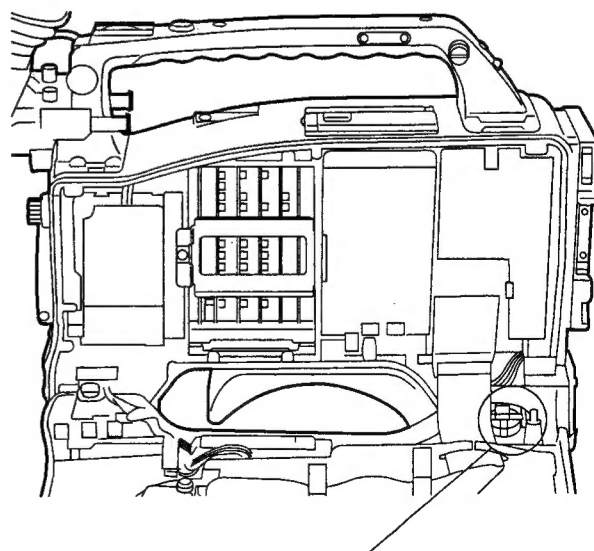


- If a battery made by any other manufacturer is to be used, check the Operating Instructions accompanying the battery.
- In geval u een batterij van een anden fabrikant zou gebruiken, gelieve dan eerst zorgvuldig de gebruiksaanwijzing van deze batterij te lezen.

Back-up Battery (Lithium Battery)

Batterij Voor Reservegeheugen (Lithiumbatterij)

- For the removal of the battery for disposal at the end of its service life, please consult your dealer.
- Raadpleeg uw leverancier over de verwijdering van de batterij op het moment dat u het apparaat bij einde levensduur afdankt.



Back-up Battery (Lithium Battery)
Batterij Voor Reservegeheugen (Lithiumbatterij)

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1 M Ω and 5.2 M Ω .
When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

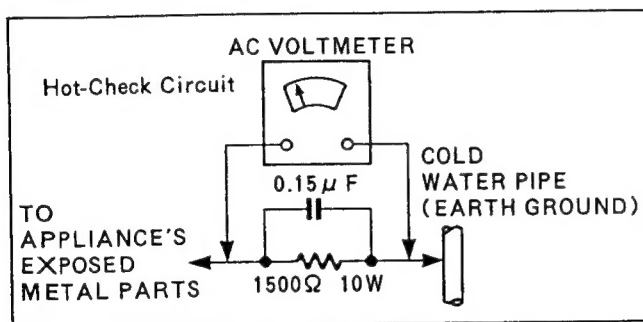


Figure 1

LEAKAGE CURRENT HOT CHECK (See Figure 1)

1. Plug the AC cord directly into the AC outlet.
Do not use an isolation transformer for this check.
2. Connect a 1.5 K Ω , 10W resistor, in parallel with 0.15 μ F capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground.
Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

X-RADIATION

WARNING

1. The potential source of X-Radiation in EVF sets is the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling 10kV without causing X-Radiation.
NOTE: It is important to use an accurate periodically calibrated high voltage meter.
3. Measure the High Voltage. The meter (electric type) reading should indicate 2.5kV, \pm 0.15kV. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure. To prevent an X-Radiation possibility, it is essential to use the specified picture tube.

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Section 1. Operating Instructions

Section 2. Maintenance & Disassembly Procedures

This section includes maintenance chart, replacement parts location, sensors location, jig & tools, P.C.boards location, alignment tapes, service menu, disassembly procedures ,major parts replacement, emergency eject, cleaning procedures, and auto off information .

Section 3. Mechanical Adjustments

This section includes LISTA adjustments.

Section 4. Electrical Adjustments

This section includes setup of EVR tool and the adjustments which need EVR tool, B.E.R.counter and RF Auto Adjustment Tool.

Section 5. Block Diagrams

Each block diagram has a brief description.

Section 6. Exploded Views & Parts List

SECTION 1

OPERATING INSTRUCTIONS

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Bold letters should be set or adjusted immediately after purchase.

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General and Features

The model AJ-D800 integrates a colour video camera which employs three interline transfer (IT) CCDs with 480,000 device on-chip lenses with a DVCPRO format VTR which is equipped with the latest compression technology.

The AJ-D800 is particularly compact and light weight with low power consumption, and realizes the optimal functions and performance for an electronic news gathering (ENG) VTR-integrated camera such as high picture quality and sensitivity, mobility, dustproofing and dampproofing, etc. In addition, both the camera section and the VTR employ a digital signal processing system which further improves picture quality and realizes a system for controlling setting menu and subject data by using world standard memory cards.

Features of the Camera Section

The camera section of the AJ-D800 has the following features.

- High sensitivity: 2000 lux (F8)
- High S/N ratio: 60 dB (standard)
- Low smear
- Ultra-low flare

Digital signal processing

Signal processing is digitized by a 14.5 MHz/29.0 MHz (typ.) 10-bit AD/DA converter. This improves picture quality, stability and reliability, and allows the viewfinder screen displays as well as numerous adjustment and setup items to be converted to menus.

Setting menu

The setting menu is displayed on the viewfinder screen, and controls the status displays, messages, marker displays, etc. Whether or not to display each item, as well as the display conditions when items are to be displayed, can be selected according to the user's convenience. For example, display ON/OFF for the 1 lamp display which informs the user that the unit has entered irregular status can be selected for 7 different conditions.

The setting menu is also used to select various settings and functions and execute memory card operations, etc.

Setup cards

Setting menu and subject data can be stored on SRAM memory cards with a capacity of 64 kilobytes or greater which conform to PCMCIA standard ratings as setup cards. Stored data can be saved individually or according to the shooting conditions, allowing the same setup conditions to be easily reproduced and assisting in standardizing setup conditions between individual data.

High-function electronic shutter

Using the built-in electronic shutter achieves steady images even of quickly moving subjects. In addition, the following special operation modes can also be selected.

- Synchro scan mode: This mode is suited for shooting personal computer and workstation monitors for screens, and provides images with little horizontal stripe noise.
- High vertical resolution (Super V) mode: This mode provides images with high vertical resolution compared to standard mode.

Wide range of video gain selections

Eleven gain values can be selected from -3 dB to +30 dB using the setting menu and the GAIN switch. The high S/N ratio allows images with little noise to be obtained even when the gain is increased for shooting in dark locations.

Automatic adjustment and memory functions for black balance/white balance

The black set, black balance and white balance can be automatically adjusted by simple switch operations. Adjustment values are held in the memory even if the power for the unit is turned off, so there is no need to readjust the balance each time the power is turned on.

There are two memory systems for white balance which can hold four adjustment values each for the CC and ND filters, making a total of eight adjustment values. When adjustment values matching the illumination conditions are selected from among the values stored in the memory, the unit is automatically adjusted to the corresponding white balance. (A menu setting also allows adjustment of only two values instead of the values for each filter.) In addition, when the unit is shipped from the factory, the white balance value for 3200K is stored in the memory as a preset value. This value can be called when there is no time to adjust the white balance, etc.

Features

High-performance viewfinder

- The high-resolution CRT projects a detailed picture which facilitates focus operations.
- The viewfinder employs a low flare CRT which makes the screen easy to see.
- A centre marker which indicates the centre of the screen and a safety zone marker which indicates the effective screen region can be displayed by menu operations.
- A large aperture allows the screen to be easily seen even when the operator's eye is removed from the eyepiece.
- The eyepiece can easily be detached. When the eyepiece is detached, the centre of the screen will not become blurred even when viewed from a distance. This also facilitates the removal of dust which has adhered to the CRT screen and mirror.
- One-touch position adjustment is possible not only in the right-left direction but also in the forward-backward direction.

Character display function

The unit is equipped with a function that displays switch settings, the automatic adjustment status for black balance and white balance, warning displays, etc. on the viewfinder screen. In addition, when using an Anton Bauer Digital Magnum series battery as the unit's power supply, the remaining battery level can be displayed numerically on the viewfinder screen.

Warning system for displaying the VTR section status

The unit informs of VTR trouble, the end of the tape, battery wear, etc. with various warning lamps and a warning tone. The remaining tape time can also be checked by the character display inside the viewfinder.

Four filter disks as standard equipment

CC (colour temperature conversion) and ND (neutral density) filters are provided as standard equipment. This allows the optimal filter setting to be selected from among four combinations in accordance with the brightness of the subject.

Fine adjustment of the automatic iris reference value

The reference value for automatic iris adjustment can be finely adjusted by setting menu operations.

Auto close function

The unit is equipped with an auto close function which automatically closes the lens in the following cases.

- When the black balance is automatically adjusted.
- When the power is turned off in the auto iris mode.

Generation of EBU colour bar and reference audio signals

The camera section contains a circuit which generates an EBU type colour bar signal to facilitate colour monitor adjustments, and a circuit which generates a reference level audio signal to facilitate audio level adjustments.

Functions and circuits for assuring high picture quality

The AJ-D800 is equipped with the following functions (and circuits) in order to assure high picture quality and is designed to make the fullest use of the advantages of the high-performance CCD.

- A built-in AUTO KNEE circuit achieves a wide dynamic range which allows large signals to pass through.
- A built-in 2-line image enhancer
- A built-in shading compensation function for use with a lens extender
- A built-in sawtooth wave generator for adjustments
- A zebra pattern ON/OFF selector switch which selects three types of zebra patterns including spot zebra from two levels of zebra patterns.

Audio functions

- A phantom power supply type super-cardioid microphone (option) can be attached and it can also be detached from the main unit for use in interviews.
- Microphone can also be connected, and can be attached to the main unit using the AJ-MH700P microphone holder (option).
- The audio CH1 recording level can be easily adjusted at the front panel of the unit.

Features

Recording by an external VTR

When an external VTR is connected using the 26-pin output adaptor (option, AJ-YA700P), recording can be performed by the external VTR instead of the internal VTR.

Remote control

Connecting the Extension Control Unit (option, AJ-EC2/AQ-EC1) allows a portion of the camera section functions to be operated by remote control.

Features of the VTR section

Digital system

The VTR section features a component digital recording system that employs the latest compression technology and non-compressed PCM recording for audio. This system provides superior S/N, frequency band and waveform characteristics as well as reproduction of detailed areas, etc., and realizes even higher picture and sound quality.

Rec review function

This function automatically rewinds the tape and plays back the last two seconds recorded, allowing recorded contents to be quickly checked.

Playback function

Playback pictures (black-and-white pictures) can be seen on the viewfinder screen. In addition, colour playback pictures can be seen on a colour monitor connected to the VIDEO OUT connector on the main unit.

Built-in time code generator/reader

Time code information can be recorded and played back on a dedicated subcode track.

Locking of the time code to an external source

The built-in time code generator can be locked to an external generator. Also, the built-in time code generator uses a lithium battery as its back-up power supply, allowing time codes to be backed up for approximately one year even if power is not supplied to the unit.

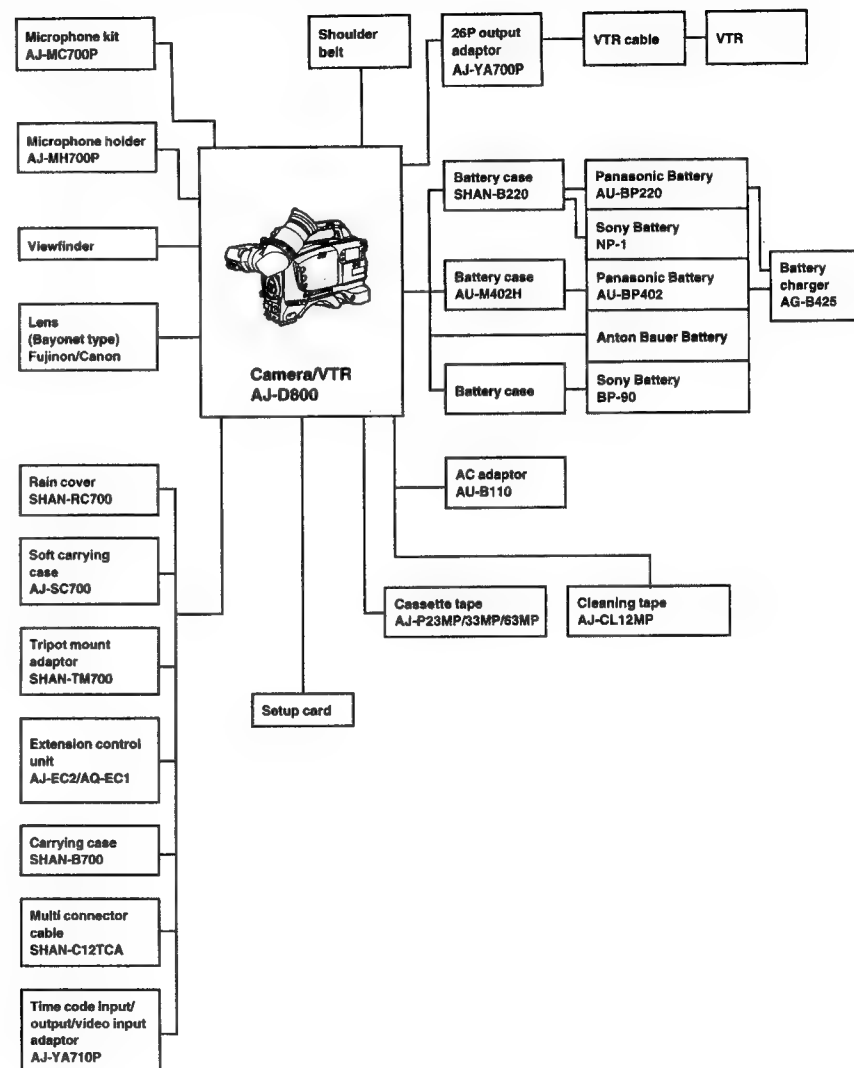
Built-in DOLBY NR System*

A Dolby B Noise Reduction System is built in for audio recording in the longitudinal direction.

Successive shooting

Images can be shot successively within an accuracy of +1 frame can be performed simply by pressing the VTR START button or the lens VTR button.

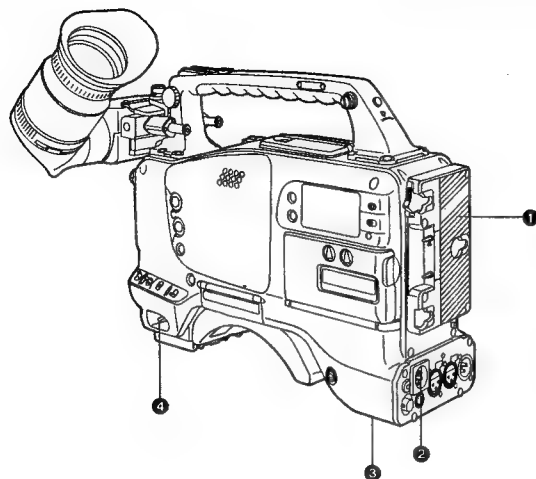
System Configuration



*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

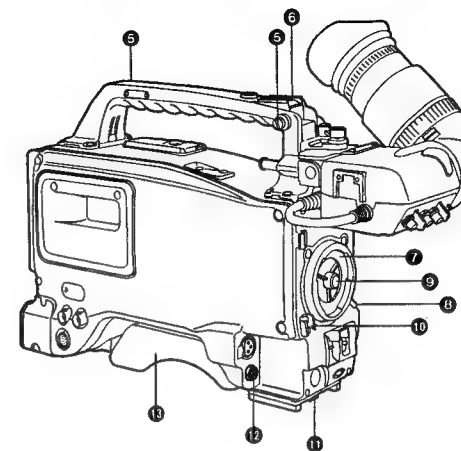
"Dolby" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Controls and Their Functions



Power Supply Section

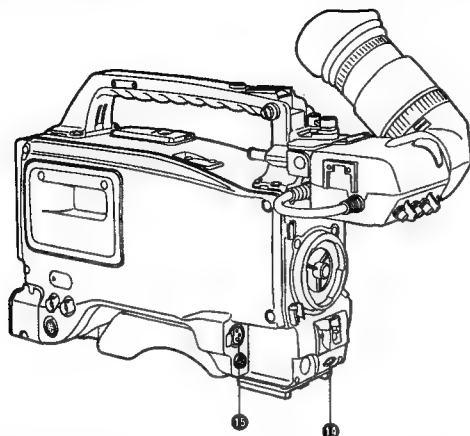
- ❶ **Battery holder**
The battery pack (option) made by Anton Bauer is mounted onto this holder.
- ❷ **DC IN (external power input) connector (XLR, 4P)**
The AU-B110 AC adaptor (option) is plugged into this socket when the unit is to be operated by AC power. An external battery is plugged in when an external battery is to be used to operate the unit.
- ❸ **BREAKER (circuit breaker) button**
In order to protect the equipment, the circuit breaker is tripped and the power is automatically turned off when an excessively high level of power flows inside. Upon completion of the internal inspection and adjustments, push this button back in. The power will come back on provided that there is no trouble inside the unit.
- ❹ **POWER switch**
ON: Set to this position to turn on the unit's power.
OFF: Set to this position to turn off the unit's power.



Accessory Mounting Section

- ❺ **Hook for mounting shoulder belt**
Attach the accessory shoulder belt to this hook.
- ❻ **Light shoe**
Mount the video light, etc. onto this shoe.
- ❼ **Lens mount (bayonet type)**
Mount the lens here.
- ❽ **Lens clamping lever**
Insert the lens into the lens mount ❷, and turn the lens mount ring using this lever to clamp the lens.
- ❾ **Lens mount cap**
Press up the lens clamping lever ❽ to remove this cap. Keep the cap in place if the lens is not going to be mounted.
- ❿ **Lens cable clamp**
This is for clamping the lens cable.
- ⓫ **Tripod mount**
When the unit is to be secured to a tripod, mount the optional tripod attachment.
- ⓬ **LENS connector (12-pin)**
Hook up the lens connecting cable to this connector. Consult with your dealer concerning the lens which you are going to use.
- ⓭ **Shoulder pad**
Adjust this pad to facilitate operation when carrying the unit on your shoulder. Its position can be brought forward or backward and adjusted by loosening the two set screws.

Controls and Their Functions

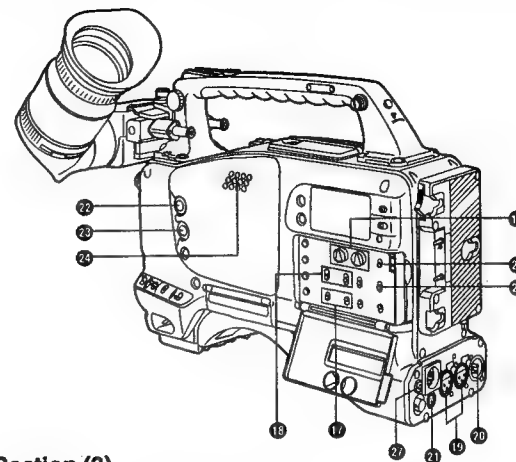


Audio Function Section (1)

- ⑭ **AUDIO LEVEL CH1 (audio channel 1 recording level) control**
When the AUDIO SELECT CH1/CH2 switch ⑦ is set to MAN, the recording level of audio channel 1 can be adjusted by this control in addition to the AUDIO LEVEL CH1 control ⑮ on the side panel.
- ⑮ **MIC IN (microphone input) jack (XLR, 3-pin)**
Connect an optional microphone to this jack. The power for the microphone is supplied from this jack.

Audio Function Section (2)

- ⑯ **AUDIO LEVEL CH1/CH2 (audio channel 1/2 recording level) controls**
When the AUDIO SELECT CH1/CH2 switch ⑦ is set to MAN, the audio level of audio channels 1 and 2 can be adjusted using these controls. However, the audio CH1 level can also be adjusted using the AUDIO LEVEL CH1 control ⑮ on the front panel.
- ⑰ **AUDIO SELECT CH1/CH2 switch (audio channel 1/2 auto/manual level adjustment selector) switch**
This selects the method used to adjust the audio levels of audio channels 1 and 2.
AUTO: For adjusting the levels automatically.
MAN: For adjusting the levels manually.
- ⑱ **AUDIO IN (audio input selector) switch**
This selects the input signals to be recorded on audio channels 1 and 2.
FRONT [MIC]: The microphone input signals connected to the MIC IN jack ⑮ are recorded.
REAR [MIC]: The microphone input signals connected to the AUDIO IN CH1/CH2 connectors ⑲ are recorded.
REAR [LINE]: The line input signals connected to the AUDIO IN CH1/CH2 connectors ⑲ are recorded.
- ⑲ **AUDIO IN CH1/CH2 (audio input channel 1/2) connectors (XLR, 3P)**
An audio component or microphone is connected here.
- ⑳ **AUDIO OUT connector (XLR, 3P)**
This is connected to an audio component. The audio channels can be selected on the setting menu.
- ㉑ **DC OUT (DC power output) connector**
This is the DC 12 V output connector. A current of approximately 100 mA can be taken out.



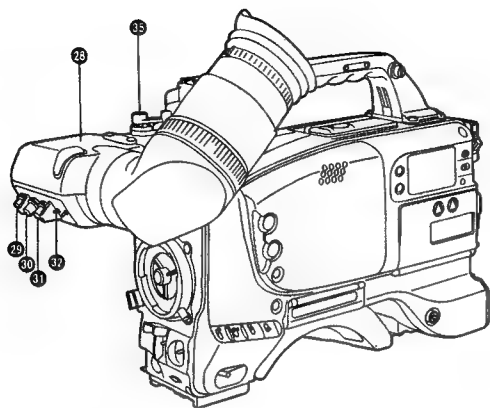
Audio Function Section (3)

- ㉒ **ALARM (warning tone volume) control**
This adjusts the warning tone volume heard from the speaker ㉔ or the earphone connected to the PHONES jack ㉑. When it is set to the lowest position, the warning tone is not audible. However, by making changes to the inside parts, the tone can be made audible even when the control is at its lowest position.
- ㉓ **MONITOR (volume) control**
This adjusts the volume of the sound other than the warning tone—the sound from the speaker ㉔ or earphone ㉑. When it is set to the lowest position, no sound is heard.

Audio Function Section (4)

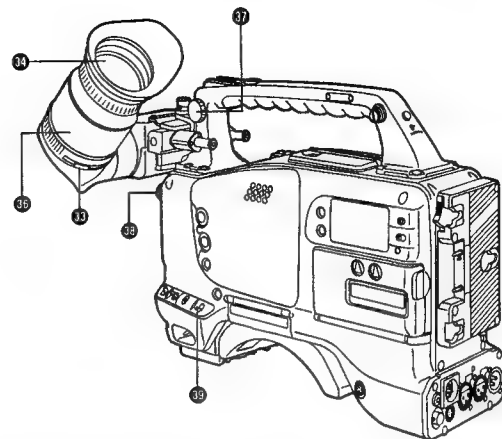
- ㉔ **Speaker**
During recording, the EE sound can be monitored; during playback, the playback sound can be monitored.
The warning tone is heard through the speaker in synchronization with the flashing or lighting of the warning lamp and warning display.
The speaker sound is automatically muted when an earphone is connected to the PHONES jack ㉑.
- ㉕ **MONITOR SELECT (audio channel selector) switch**
This selects the audio channel whose sound is to be heard through the speaker ㉔ or earphone.
CH1: The audio channel 1 sound is output.
CH1, 2: The sound produced by mixing the audio channel 1 and 2 sound or the stereo sound is output. However, only the mixed sound is output from the speaker ㉔.
CH2: The audio channel 2 sound is output.
- ㉖ **MONITOR (sound selector) switch**
This selects the sound of the earphone when CH1, 2 is selected with the MONITOR SELECT switch ㉕.
- ㉑ **PHONES (earphone) jack (mini-jack)**
When an earphone (option) is connected to this jack, the sound selected by the MONITOR switch ㉖ can be heard. The warning tones relating to the unit's operation or status can also be heard. An earphone enabling a sufficiently high volume of sound to be heard is recommended. When the earphone is connected, speaker ㉔ sound is automatically muted.

Controls and Their Functions



Shooting (Recording)/Playback Function Section (1)

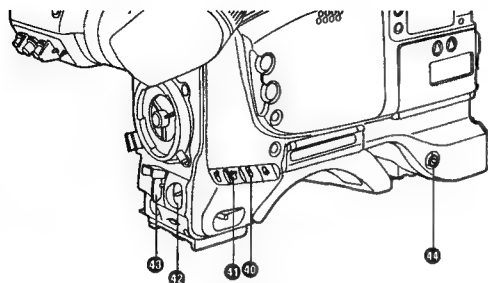
- 28 Viewfinder**
Black-and-white images can be seen in the viewfinder during recording and playback. Warnings and messages relating to the unit's operating status and settings, zebra pattern, markers (safety zone marker, centre marker), etc. can also be seen.
- 29 PEAKING control**
This is used to adjust the contours of the images inside the viewfinder to facilitate focusing. It does not affect the camera's output signals.
- 30 CONTRAST control**
This is used to adjust the contrast of the screen inside the viewfinder. It does not affect the camera's output signals.
- 31 BRIGHT control**
This is used to adjust the brightness of the screen inside the viewfinder. It does not affect the camera's output signals.
- 32 ZEBRA (zebra pattern) switch**
This displays the zebra pattern inside the viewfinder.
ON: The zebra pattern is displayed.
OFF: The zebra pattern is not displayed.
When the unit is shipped from the factory, the zebra pattern is set in such a way that those parts with an video level from approx. 70% to 85% are displayed. The displaying of parts with a level ranging from 50% to 110% or more or with a certain level can also be set on the setting menu.
- 33 Diopter control knob**
This is adjusted in such a way that the images on the viewfinder screen are seen most clearly in accordance with the dioptic power of the camera's operator.
- 34 Eye cup**
- 35 Viewfinder forward-backward/left-right position clamp lever**
Loosen this lever to adjust the position of the viewfinder 28 in the forward-backward or left-right direction.
- 36 Eyecup forward-backward movement ring**
Turn this ring to adjust the position of the eyecup 34 in the forward-backward direction.
- 37 Viewfinder stopper screw**
To detach the viewfinder 28 from the camera, loosen this screw and then detach the viewfinder.



Shooting (Recording)/Playback Function Section (2)

- 38 CC/ND FILTER (filter selector) knob**
This selects the filter to match the light source which is illuminating the subject. If the setting of this knob is changed when the menu display mode has been set to "3" (default setting), the new setting will appear for about 3 seconds on the setting change message display area of the viewfinder screen.
- The knob and filter settings are listed below.
- | FILTER knob setting | Description |
|---------------------|--------------|
| 1 | 3200K |
| 2 | 5600K+1/4ND |
| 3 | 5600K |
| 4 | 5600K+1/16ND |
- Examples of filter settings to match shooting conditions
- | Filter | Shooting condition |
|--------|---|
| 1 | Sunrise, sunset, inside a studio |
| 2 | Outdoors under a clear sky |
| 3 | Outdoors under a cloudy or rainy sky |
| 4 | Snow scenes, high mountains, coastlines and other extremely clear and bright scenes |
- 39 WHITE BAL (white balance memory selector) switch**
PRST: Set to this position when there is no time to adjust the white balance. The white balance value for 3200K is stored in the memory.
A or B: When the AUTO W/B BAL switch 40 is pressed to the AWB side, the white balance is automatically adjusted in accordance with the setting position of the filter knob 38, and the adjustment value is stored in memory A or memory B.
When the FILTER knob and the WHITE BAL switch are set to the same positions as the ones set when the adjustment was made, the adjustment value stored in the memory is called, and the unit is automatically adjusted to the white balance which corresponds to this value.
If the setting of this switch is changed when the menu display mode has been set to "3" (default setting), the new setting will appear for about 3 seconds at the WHITE BAL switch display position on the viewfinder screen. (Example: "W : A")

Controls and Their Functions



Shooting (Recording)/Playback Function Section (3)

10 OUTPUT (output signal selector)/AUTO KNEE switch

This switch selects the video signals which are to be output from the camera unit to the VTR unit, viewfinder and video monitor. The AUTO KNEE function can be used when the images shot by the camera have been selected.

■ OUTPUT/AUTO KNEE switch setting positions

BARS	Colour bar signals are output. The AUTO KNEE circuit is not activated. Set the switch to this position in the following cases: • When adjusting the video monitor • When recording colour bar signals
CAM, AUTO KNEE OFF	The images shot by the camera are output. The AUTO KNEE circuit is not activated. The default setting is "MANUAL KNEE".
CAM, AUTO KNEE ON	The images shot by the camera are output. The AUTO KNEE circuit is activated.

11 GAIN (gain selector) switch

This is used to change the video amplifier's gain in accordance with the lighting conditions during shooting. The gain values corresponding to the L, M and H settings are assigned beforehand on the setting menu. When the unit is shipped from the factory, these settings are: L=0 dB, M=9 dB and H=18 dB.

If the setting of this switch is changed when the menu display mode has been set to "3", the new setting will appear for about 3 seconds at the gain display position on the viewfinder screen. (Example: "12 dB")

12 AUTO W/B BAL (white balance/black balance automatic adjustment) switch

AWB: Set to this position for automatically adjusting the white balance. When the WHITE BAL switch 12 is now set to "A or B", the adjusted value will be stored in memory A or memory B.

ABB: Set to this position for automatically adjusting the black balance. The adjusted value will be stored in the dedicated memory.

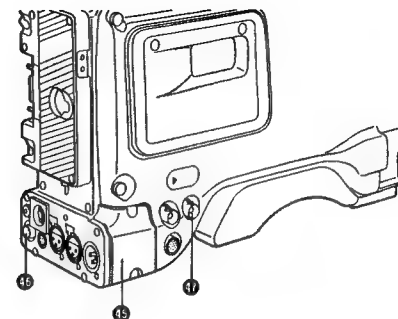
13 SHUTTER switch

Set this to ON when using the electronic shutter. When it is pressed to the SEL side, the shutter speed and mode displays change in the ranges preset on the setting menu. If the setting of this switch is changed when the menu display mode has been set to "2" or "3", the new settings will appear for about 3 seconds at the shutter display position on the viewfinder screen. (Example: "1/252", "1/50.5")

1) AUTO KNEE function

When the level is adjusted to people, scenes, etc. for shooting against a very bright background, the background will be whited out and the buildings or scenes in the background will become blurred. If the AUTO KNEE function is activated in cases like these, the background can be reproduced in clear detail. This function is especially effective for shooting in the following conditions:

- When shooting people in shade under a clear sky
- When simultaneously shooting people in vehicles or indoor and the outdoor scenery seen through the windows
- When shooting scenes with a high contrast



15 ECU REMOTE (remote control) connector (6-pin)

Connect the AJ-EC2/AQ-EC1 extension control unit (option) here.

<Note>

The POWER switches on unit and extension control unit must be set to OFF before the remote control cable is connected or disconnected.

16 VIDEO IN connector (accessory)/26-pin output adaptor (option) mount

VIDEO IN connector (accessory) (See below for the mounting method.)

The composite video signals are supplied here. It is used for checking the return signal.

26-pin output adaptor (option) (See page 98 for mounting method.)

The 26-pin output adaptor AJ-YA700P (option) is mounted on this section. When the portable VTR is connected as the external VTR, recording can be performed simultaneously with the unit's built-in VTR.

17 VIDEO OUT connector (BNC)

This outputs the video signals (75Ω termination, rated level) to be monitored. During recording, EE images can be monitored; during playback, playback images can be monitored.

While performing settings on the menu, the setting menu can be superimposed onto the shot images appearing on the monitor screen so that the settings can be checked (in which case, the images appear in black and white).

18 CAM OUT (camera output) connector (BNC)

This outputs the composite video signals (75Ω termination, rated level). When a video monitor is connected, the images shot by the camera can be monitored. Even while the VTR is playing back, the camera's images are output at all times.

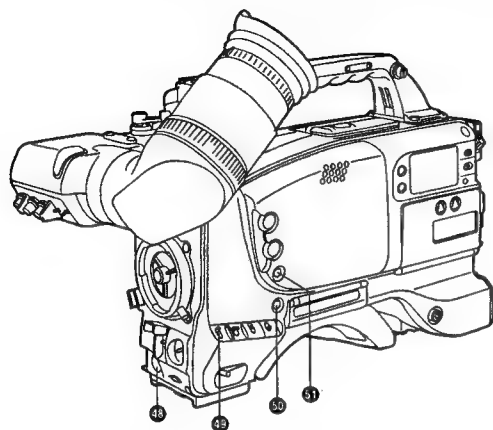
Mounting the VIDEO IN connector

Remove the blank panel and mount the VIDEO IN connector.



Connect the 2P connector.

Controls and Their Functions



Shooting (Recording)/Playback Function Section (4)

46 VTR START button

When this pressed, recording commences; when it is pressed again, recording stops. This button has the same function as the VTR button on the lens side.

47 VTR SAVE/STBY (tape protection) switch

This selects the power supply status while the VTR recording is temporarily stopped (REC PAUSE).

SAVE: This is the tape protection mode. The cylinder is stopped in the half-loading status. Compared with the STBY position, less power is consumed and the unit can be operated longer using the battery. It takes longer for recording to commence after the VTR START button 46 is pressed in the SAVE position than in the STBY position. When the switch is set to this position, the VTR SAVE lamp inside the viewfinder lights.

STBY: Recording commences immediately when the VTR START button is pressed.

48 MODE CHECK button

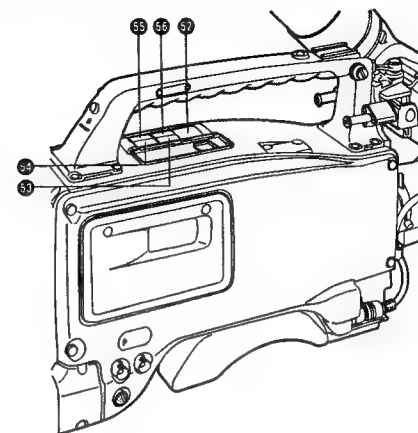
While this button is kept depressed, the camera's setting status is displayed in the viewfinder. It does not affect the camera's output signals. This button can also be used for fine adjustment at the setting menu during synchro scan mode.

49 SUPER IRIS button

This is used when backlight compensation is to be provided. When it is pressed, the switch settings are displayed inside the viewfinder for 3 seconds. When it is pressed again, backlight compensation is released.

Whether the super gain (30 dB) mode or the super iris (backlight compensation) mode is to apply can be selected on the setting menu. This button can also be used for fine adjustment during synchro scan mode.

Super gain: When 30 dB is allotted to the SUPER IRIS button, DTL and other menu settings cannot be performed for this 30 dB.



50 EJECT (cassette eject) button

Press this to insert or eject the cassette.

51 REW (rewind) button

Press this to rewind the tape. Its lamp lights during rewinding.

If this button is pressed during playback, the playback images are rewound at approximately quadruple speed while the button is held down.

52 FF (fast forward) button

Press this to fast forward the tape. Its lamp lights during fast forwarding.

If this button is pressed during playback, the playback images are fast forwarded at approximately quadruple speed while the button is held down.

53 PLAY (playback) button

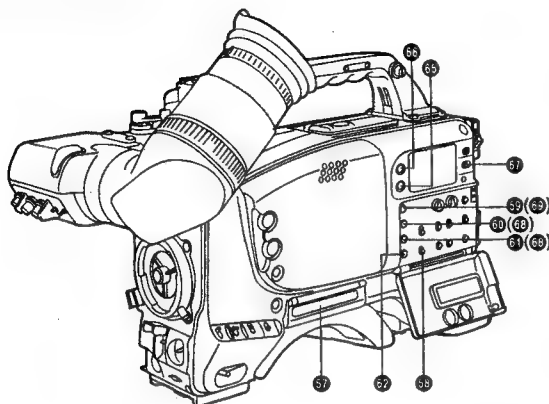
Press this to view the playback images on the viewfinder screen or colour video monitor. Its lamp lights during playback.

If this button is pressed again during playback, playback is paused and the lamp goes off. After playback has been paused for 2 minutes, the unit automatically switches to stop status (STOP).

54 STOP button

Press this to stop the tape travel.

Controls and Their Functions

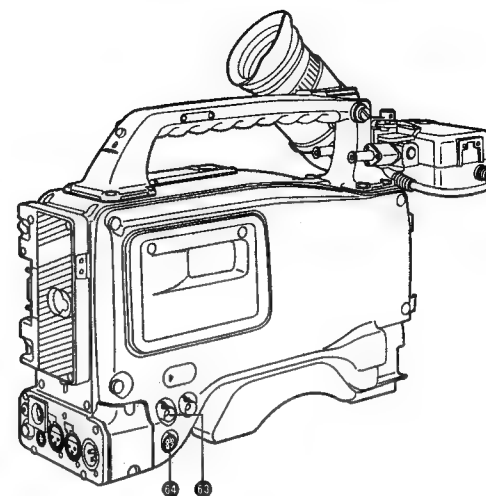


Menu Operation Section

- ⑦ Setup card insertion slot**
The optional setup cards are inserted into this slot.
- ⑧ MENU SET/OFF switch**
This displays the setting menu on the viewfinder screen.
SET: The page on which the previous setting menu operations were completed appears on the viewfinder screen. (When the menu is used for the first time, the first of the pages which can be displayed appears.)
OFF: The setting menu is not displayed on the viewfinder screen.
- ⑨ SHIFT/ITEM button**
Each time this button is pressed, the cursor moves on the setting menu page now displayed. Use it when selecting items.
<Note>
This switch functions differently depending on the operation item. Check the function by operating the menu item by item.
- ⑩ UP button**
This is used to increment the setting of the item selected on the setting menu by 1 level each time it is pressed or to switch the setting between ON and OFF.
- ⑪ DOWN button**
This is used to decrement the setting of the item selected on the setting menu by 1 level each time it is pressed or to switch the setting between ON and OFF.
- ⑫ PAGE button**
This is used to select the setting menu page.

Time Code-Related Section (1)

- ⑬ GENLOCK IN connector (BNC)**
The reference signal is supplied to this connector for genlocking with the camera section.

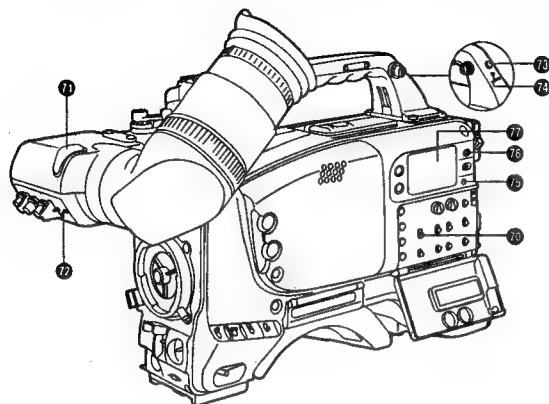


- ⑭ Multi (TC IN/OUT, AUDIO OUT CH1/CH2) connector**
TC IN side:
The time code serving as the reference is input when the time code is locked to an external source.
TC OUT side:
Connect this to the time code TC IN connector on the external VTR when locking the external VTR's time code to this unit's time code.
AUDIO OUT CH1/CH2 side:
This is the audio output connector. The audio signal is output at -20 dB (0 dB=0.775 V), unbalanced.

Time Code-Related Section (2)

- ⑮ HOLD button**
The time data appearing on the counter display at the instant when this button is pressed is held. (The time code generator will still continue to run.) When the button is pressed again, the hold status is released. Use the button to ascertain the time at which a particular scene was shot, for example.
- ⑯ RESET button**
This resets the time data or user's bit data on the counter display to "00:00:00:00" or "00 00 00 00", respectively.
- ⑰ DISPLAY switch**
The time code, CTL or user's bit is made to appear on the counter display depending on the setting positions of this switch and the TCG switch ⑮.
UB: The user's bit is displayed.
TC: The time code is displayed.
CTL: CTL is displayed.
- ⑱ UP button, DOWN button**
When setting the time code or user's bit, these buttons increment or decrement by 1 the figure of the digit made to flash by the SHIFT/ITEM button ⑨.
- ⑲ SHIFT/ITEM (digit advance) button**
When setting the time code or user's bit, this button is used to cause the digit which is to be set to flash.

Controls and Their Functions



⑩ TCG (time code selector) switch

This is used to set the running mode of the internal time code generator.

F-RUN: This position is used when the time code is to be advanced continuously regardless of the VTR's operation.

Set to this position when aligning the time code with the actual time or locking the time code to an external source.

SET: This position is used for setting the time code or user's bit.

R-RUN: This position is used when the time code is to be advanced only while recording is in progress. The time code will be recorded continuously on a tape with a succession of unedited shots.

Warning/Status Display Section

⑪ Tally lamp

This is activated when the TALLY switch ⑫ is at HIGH or LOW, and it lights during recording by the VTR section. It flashes in the same way as the REC lamp inside the viewfinder to warn the operator. The brightness when lighted can be selected using the TALLY switch (HIGH or LOW).

⑫ TALLY switch

This controls the tally lamp ⑪.

HIGH: The tally lamp is made brighter.

OFF: The tally lamp is extinguished.

LOW: The tally lamp is made darker.

⑬ Back tally lamp

This functions in the same way as the tally lamp ⑪ when the back tally switch ⑭ is set to ON.

⑭ Back tally switch

This controls the back tally lamp ⑬.

ON: The back tally lamp operates.

OFF: The back tally lamp does not operate.

⑮ WARNING lamp

This flashes or lights when trouble occurs in the VTR section.

⑯ LIGHT switch

ON: This illuminates the display window ⑰.

OFF: This extinguishes the display window illumination.

⑰ Display window

The warnings related to the VTR section, remaining battery level, sound level, time data, etc. are displayed in this window.

Power Supply

Power can be supplied to the unit using a battery pack or AC power supply.

Using a battery pack

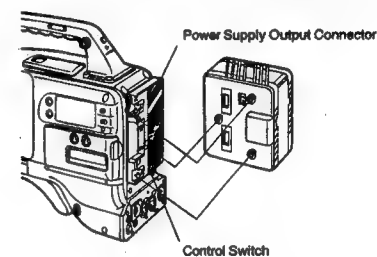
① Panasonic, ② Anton Bauer or ③ Sony batteries can be used for the battery pack.

Before using a battery pack, be sure to charge it completely using a battery charger.

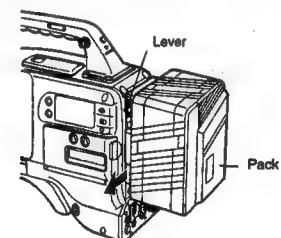
● See the Handling Instructions for the battery pack and battery charger for a detailed explanation of charging methods.

Using an Anton Bauer Battery Pack

- 1 Mount the battery pack.
Insert the battery pack in the direction of the arrow and then slide it into place.



- 2 When detaching the battery, hold down the detachment lever of the battery holder and slide the battery pack in the direction of the arrow.



<Note>

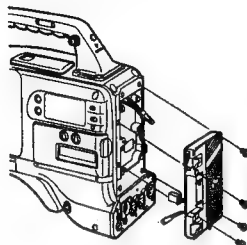
The AJ-D800 supports the intelligent battery system and the ultra-light system.

Automatic detection can be performed for intelligent batteries with a remaining battery level of 10% or more. At this time, the remaining battery level is displayed numerically (percentage display) inside the viewfinder. If the power is turned on with a remaining battery level of 10% or less, the voltage is displayed. Also, after intelligent battery detection, the remaining battery level display indicates the level for the intelligent battery even if power is supplied from an external source.

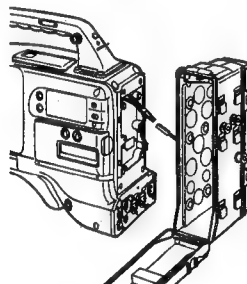
Power Supply

Using the Panasonic AU-BP402 Battery Pack

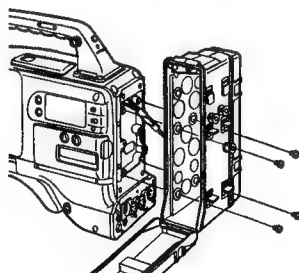
- 1 Detach the battery mounts.



- 2 Connect the unit's connectors with the connectors of the AU-M402H battery case.



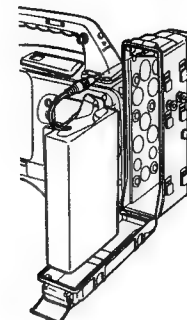
- 3 Mount the AU-M402H battery case.
Open the battery case cover and lift up the rubber cap to expose the screw holes. Tighten the screws with a screwdriver and mount the case to the unit. Be sure to tighten the screws completely.



<Notes>

- Do not pull strongly on the rubber cap.
- Take care not to catch the connection cord between the battery case and the main unit.

- 4 Connect the battery pack plug to the connector inside the case and insert the battery pack.



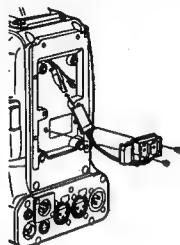
<Note>

The unit's power must be set to OFF before the plug is inserted or removed.

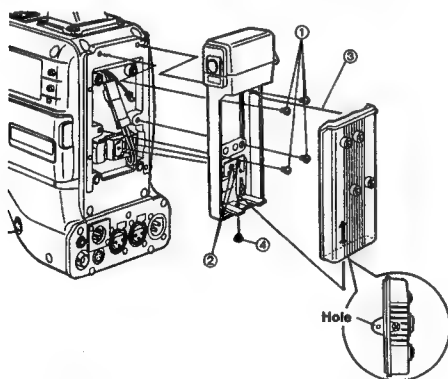
Power Supply

Using a Sony Battery Pack

- 1 Remove the battery mounts.
See page 24.
- 2 Mount the accessory battery mounting connector.



- 3 Mount the Sony battery holder.
Mount the battery case with the cover detached first, and then mount the detached cover as shown in the figure.
 - ① Tighten the mounting screws.
 - ② Tighten the power supply contact screws.
 - ③ Insert the top of the detached cover in the direction of the arrow.
 - ④ Align the hole at the bottom (metal part) of the cover with the hole at the bottom of the case and mount the cover to the battery mounting connector with the screw of the battery holder.

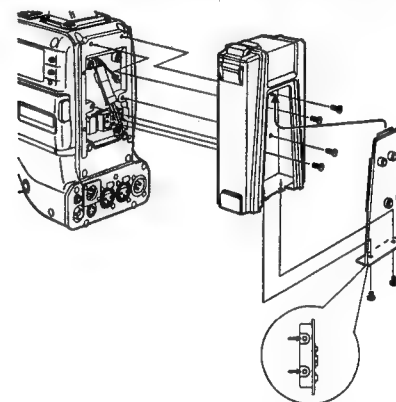


<Note>

Take care when attaching the battery holder that the wires are not pinched.

Using the Sony BP-90 Battery Pack

- 1 Mount the accessory battery mounting connector.
(See the preceding page.)
- 2 Mount the BP-90 battery case.
 - ① Tighten the mounting screws.
 - ② Tighten the power supply contact screws.
 - ③ Insert the top of the detached cover in the direction of the arrow.
 - ④ Align the hole at the bottom (metal part) of the cover with the bottom of the case and mount the cover to the battery mounting connector with the screw.



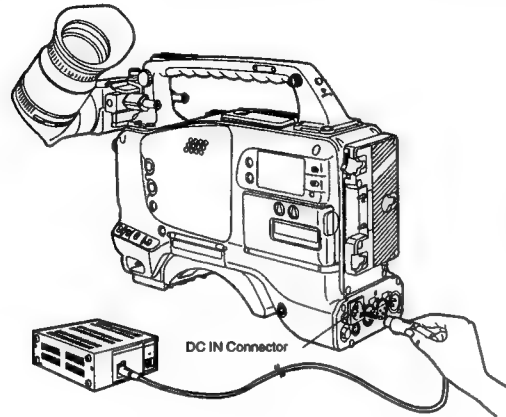
<Notes>

- The unit's power must be set to OFF before the plug is inserted or removed.
- Take care when attaching the battery case that the wires are not pinched.

Power Supply

Using an AC Power Supply (When using the AU-B110 AC Adaptor)

- 1 Connect the unit's EXT DC IN socket with the DC OUT connector of the AU-B110 AC adaptor.



- 2 Set the AC adaptor's power to ON.

- 3 Set the unit's power switch to ON.

<Notes>

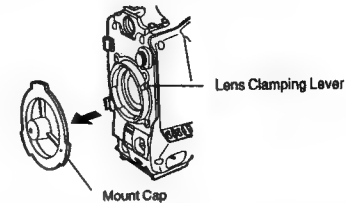
- When using an external power supply other than the AU-B110 AC adaptor, check the pin signal of the EXT DC IN socket.
- When both a battery pack and AC adaptor are connected, power is supplied from the AC adaptor.
- When using an AC adaptor, the AC adaptor's power must be set to ON before the unit's POWER switch is set to ON. If this sequence is reversed, the AC adaptor's output voltage will rise slowly and may cause the unit to malfunction.

Pin No.	Signal
1	GND
2, 3	—
4	+12 V

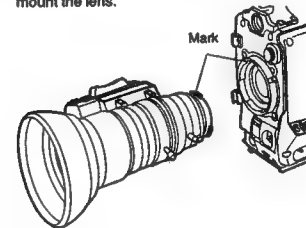


Mounting the Lens

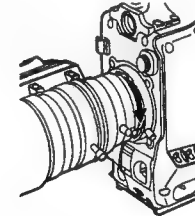
- 1 Raise the lens clamping lever and remove the mount cap.



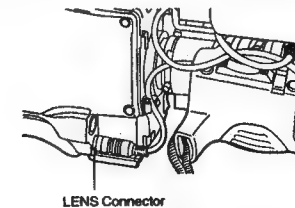
- 2 Align the indentation at the top centre of the lens mount with the centre mark of the lens and mount the lens.



- 3 Lower the lens clamping lever and clamp the lens.



- 4 Press the cable into the cable clamp and connect it to the LENS connector.



- See the Handling Instructions provided with the lens for lens handling.

<Note>

The lens and camera adjustments listed below may be necessary depending on the lens to be mounted.

1. Lens flanging adjustment
2. Lens auto iris adjustment
3. Lens white shading adjustment (with this unit)

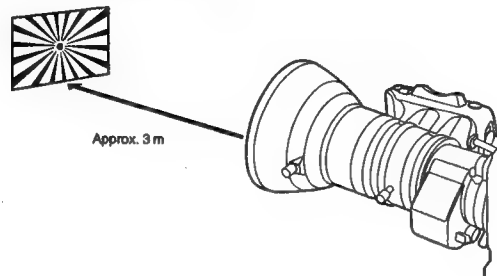
Adjusting the Lens Flange

When images are not clearly focused at both the telephoto and wide-angle positions during zoom operations, adjust the flange back (the distance from the lens mounting surface to the image formation surface).

Once adjusted, the flange back does not need to be readjusted as long as the lens is not changed.

Adjustment method

Check the position of each part of the lens which must be operated in order to adjust the flange back with the lens Handling Instructions.



Adjusting the Flange Back

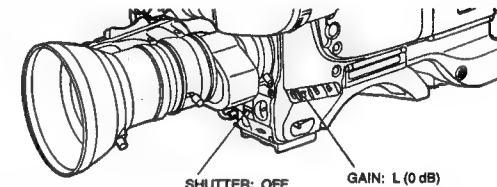
- 1 Set the lens iris to manual.
 - 2 Open the iris. Position the flange back adjustment chart about 3 m from the lens and illuminate it so that an appropriate image output level is obtained.
If the image level is too high, use the CC/ND filters or the shutter.
 - 3 Loosen the F1 ring clamping screw.
 - 4 Set the zoom ring to the telephoto position manually or by electric drive.
 - 5 Shoot the flange back adjustment chart and turn the distance ring to bring the chart into focus.
 - 6 Set the zoom ring to the wide-angle position.
 - 7 Turn the F1 ring to bring the chart into focus.
At this time, take care not to move the distance ring.
 - 8 Repeat this operation four to seven times until the lens is in focus at both the telephoto and wide-angle positions.
 - 9 Firmly tighten the F1 ring clamping screw.
- Refer to the Operating Instructions of the lens.

Adjusting the White Shading

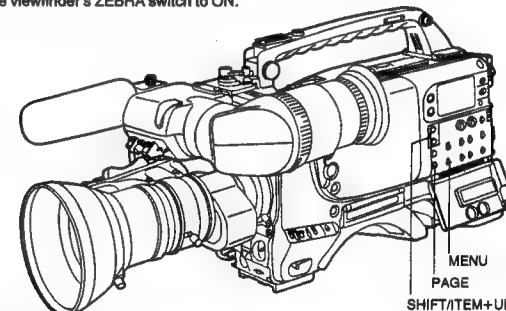
Follow the procedure described below if it is necessary to re-adjust the white shading.

White shading adjustment procedure

- 1 Mount a lens to the camera.
Be sure to also connect the lens cable.
- 2 Set the electronic shutter to OFF and the gain to L (0 dB).

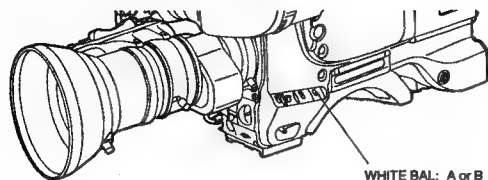


- 3 If the lens has an extender, remove the extender.
- 4 Set the MENU SET/OFF switch from OFF to SET while holding down the SHIFT/ITEM and UP buttons to open the menu.
Press the PAGE button until the VF OPERATION page appears.
Set ZEBRA1 DETECT to 70, ZEBRA2 DETECT to 85 and ZEBRA2 to SPOT. (Initial setting mode)
Return the MENU SET/OFF switch from SET to OFF to close the menu.
Set the viewfinder's ZEBRA switch to ON.



- 5 Shoot an evenly white paper.
Flickering occurs easily when fluorescent or mercury lamps, etc. are used for lighting. Therefore, use a light source which does not produce flickering such as sunlight or halogen lamps, etc.
- 6 Set the lens iris to manual and adjust the iris so that the ZEBRA pattern covers the entire screen. If the light strikes the subject in an uneven manner, the ZEBRA pattern will not cover a part of the screen. Therefore, adjust the position of the light source, etc. as necessary.
Check that the lens iris is between F4 to F11. If the lens iris is not within this range, adjust the position of the light source, etc.
(Be sure to set the electronic shutter to OFF.)

- 7** Set the WHITE BAL selector switch to A or B execute AWB. Next, execute ABB and then execute AWB again.



- 8** Repeat step 6.

- 9** Set the MENU switch from OFF to SET while holding down the SHIFT/TEM and UP buttons to open the menu. Press the PAGE button until the AUTO SHADING page appears. Press the SHIFT/TEM button to move the arrow on the left to the WHITE position and then press the UP or DOWN button. ACTIVE appears on the viewfinder to indicate that white shading automatic adjustment is operating. Adjustment is completed when the ACTIVE display disappears. Return the MENU switch from SET to OFF to close the menu.

- 10** When the lens to be used has an extender, insert an extender and repeat steps 6 to 9.

This completes white shading adjustment.

The adjustment value is stored in the non-volatile memory, so there is no need to readjust the white shading even if the power for the unit is turned off.

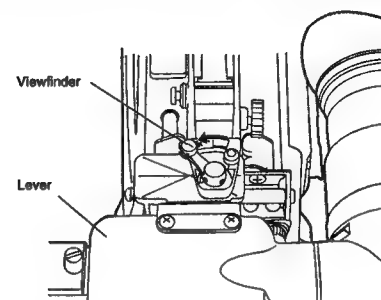
<Notes>

1. The white shading can be adjusted for general lenses using the above method. However, this method may not apply for extremely special lenses.
2. Vertical colouring may occur near the open position of the lens iris even after performing the above adjustments. However, this is characteristic of the optical system of the lens, and does not indicate a malfunction.

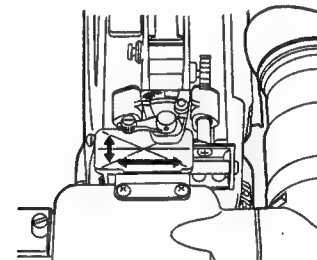
Adjusting the Viewfinder

Adjusting the Position

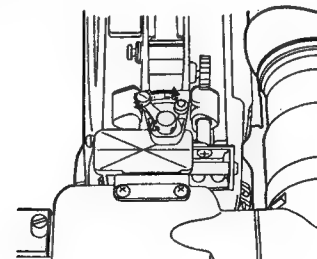
- 1** Loosen the viewfinder forward-backward/left-right position clamp lever.



- 2** Adjust the position of the viewfinder in the forward-backward and left-right directions.



- 3** Tighten the viewfinder forward-backward/left-right position clamp lever to the locked position.

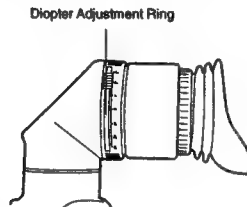


Adjusting the Viewfinder

Adjusting the Diopter and Screen

Adjusting the diopter

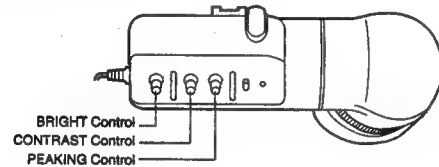
- 1 Set the POWER switch to ON. A picture will appear in the viewfinder.
- 2 Turn the diopter adjustment ring to adjust the diopter so that the viewfinder picture can be clearly seen.



Adjusting the screen

Adjust the condition of the viewfinder screen.

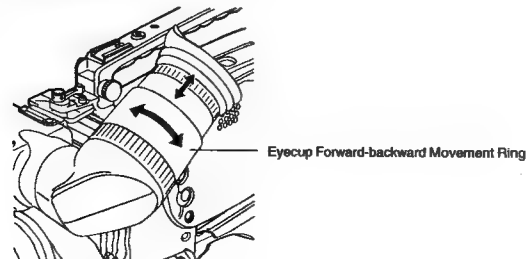
Brightness: Adjust the BRIGHT control
Contrast: Adjust the CONTRAST control
Contour: Adjust the PEAKING control



- 1 Set the POWER switch to ON.
- 2 Set the OUTPUT switch to CAM.
- 3 Turn the viewfinder BRIGHT and CONTRAST controls to adjust the picture brightness and contrast. Turning the PEAKING control makes the picture appear softer or sharper. A sharp picture facilitates focusing the lens.

Adjusting the Eyecup Position

Turn the eyecup forward-backward movement ring to adjust the position of the eyecup in the forward-backward direction.



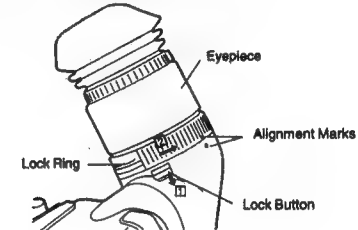
Detaching the Eyecup

Detaching the eyecup allows the entire screen to be seen clearly even when shooting with your eye removed from the viewfinder. This also facilitates the removal of dust which has adhered to the CRT screen and mirror.

<Note>

Absolutely do not wipe the mirror surface as it has been specially treated. Dust which has adhered to the mirror should be blown away with a blower, etc.

- 1 Press the lock button.
- 2 Turn the lock ring as far as possible in the counter-clockwise direction and line up the alignment marks on the lock ring and viewfinder barrel.

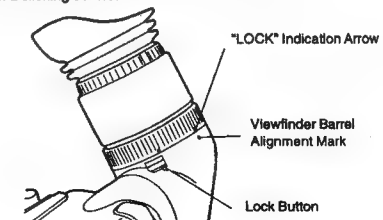


- 3 Detach the eyecup.



Remounting the eyecup

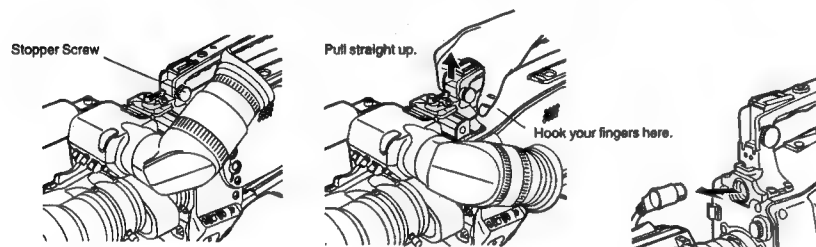
1. Line up the alignment marks on the lock ring and the viewfinder barrel.
2. Line up the alignment mark at the tip of the eyepiece (see the illustration for step 2 above) with the alignment marks on the lock ring and the eyecup and insert the eyecup into the barrel.
3. Turn the lock ring as far as possible in the clockwise direction and line up the lock ring's "LOCK" indication arrow with the alignment mark on the barrel of the viewfinder.
4. The lock button latches with a clicking sound.



Adjusting the Viewfinder

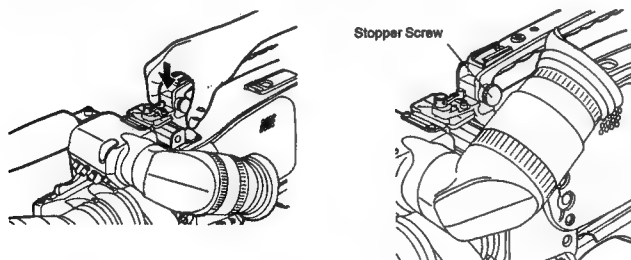
Detaching the Viewfinder

- 1 Check that the POWER switch is set to OFF.
- 2 Disconnect the plug from the viewfinder cable connector.
<Note>
Use both hands to detach the viewfinder. The viewfinder may not detach smoothly with one hand, resulting in damage to the viewfinder.
- 3 Loosen the viewfinder stopper screw and detach the viewfinder by pulling it straight up.



Mounting the Viewfinder

- 1 Press down the viewfinder.
- 2 Tighten the viewfinder stopper screw firmly.
- 3 Connect the plug in the viewfinder connector and secure the viewfinder cable with the clamp.
<Note>
Insert the plug firmly when connecting it to the viewfinder connector.



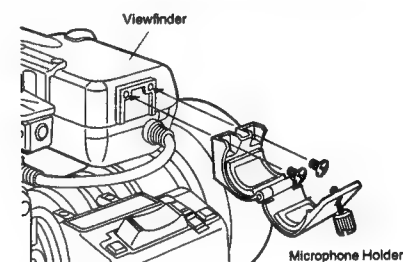
Audio Input Preparations

Using the Microphone Mounted to the Main Unit

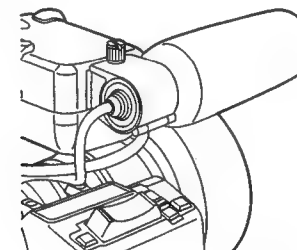
Using the AJ-MC700P microphone kit (option) or the AJ-MH700P microphone holder (option) allows a microphone to be mounted to the main unit.
•See the Handling Instructions for the microphone holder.

Using the AJ-MC700P Microphone Kit (Option) Mounted to the Main Unit

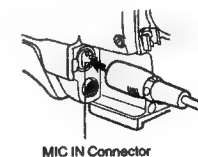
- 1 Mount the microphone holder.



- 2 Mount the microphone.



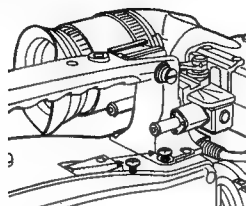
- 3 Connect the microphone connecting cable to the unit's MIC IN Jack.



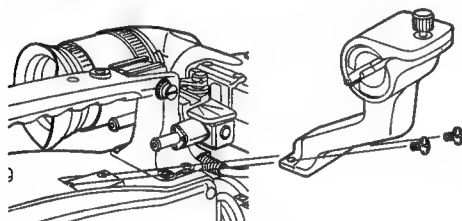
Audio Input Preparations

Mounting the AJ-MH700P Microphone Holder (Option)

- 1 Remove the microphone holder mounting screws.

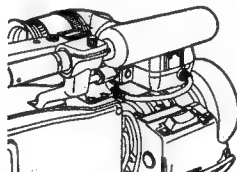


- 2 Mount the AJ-MH700P microphone adaptor (option) to the main unit.

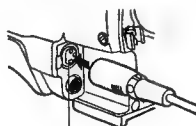


Mount the microphone adaptor using the accessory screws.

- 3 Mount the microphone to the microphone holder and tighten the screws.



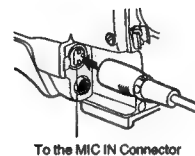
- 4 Connect the microphone connecting cable to the MIC IN jack.



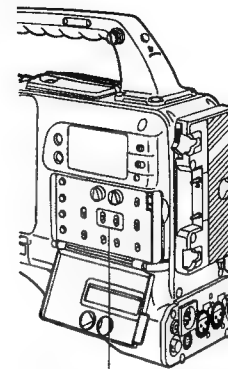
To the MIC IN Connector

- 5 Set the AUDIO IN switch to FRONT [MIC] in accordance with the audio channel to be recorded.

Using the Microphone not Mounted to the Main Unit



To the MIC IN Connector



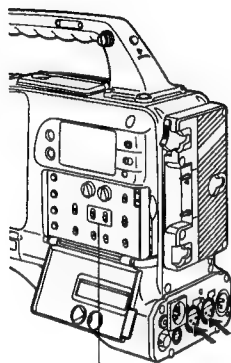
AUDIO IN switch: Set the AUDIO IN switch for the audio channel you wish to record to FRONT [MIC].

<Note>

When extending the microphone, use a cable which supports the phantom power supply type of microphone.

Audio Input Preparations

Using the Microphone not Mounted to the Main Unit

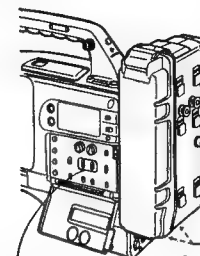


Up to two external microphones can be connected to the AUDIO IN CH1/CH2 Connectors. Phantom power supply type microphones can also be supported by a menu setting.

AUDIO IN Switch: Set the AUDIO IN Switches of the channels to which microphones are connected to REAR [MIC].

Connecting an Audio Component

When using an audio component as the line input signal source, connect the audio component to the unit's AUDIO IN CH1/CH2 connectors.



AUDIO IN Switch: Set the AUDIO IN Switch of the channel to which the audio signal source is connected to REAR [LINE].

Connect to the AUDIO IN CH1/CH2 Connectors.

Audio Equipment

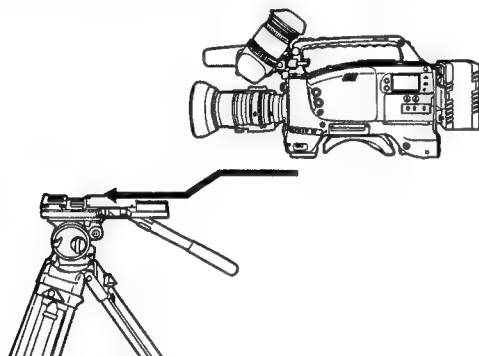
Mounting the Unit to a Tripod

When mounting the unit to a tripod, use an optional tripod attachment.

- 1 Mount the tripod attachment to the tripod.
Select the attachment hole in consideration of the unit's and tripod attachment's centre of gravity. In addition, check that the diameter of the selected hole matches the diameter of the universal head's camera mounting screw.



- 2 Mount the camera to the tripod attachment.
Slide the unit forward along the grooves until a clicking sound is heard.

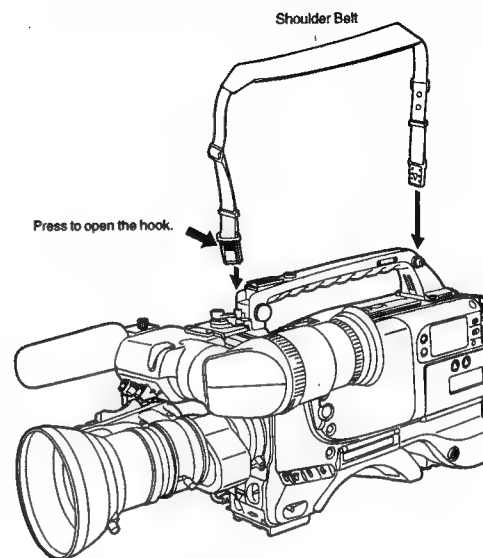


When detaching the tripod attachment
Hold down the red lever and move the black lever in the direction of the arrow.



<Note>
When the tripod attachment pin does not return to its original position after the camera has been detached, hold down the red lever and move the black lever in the direction of the arrow again to return the pin to its original position.
Care should be taken as the camera cannot be mounted if the pin remains in the centre.

Mounting the Shoulder Belt



To remove the shoulder belt, open the hooks and then remove the belt.

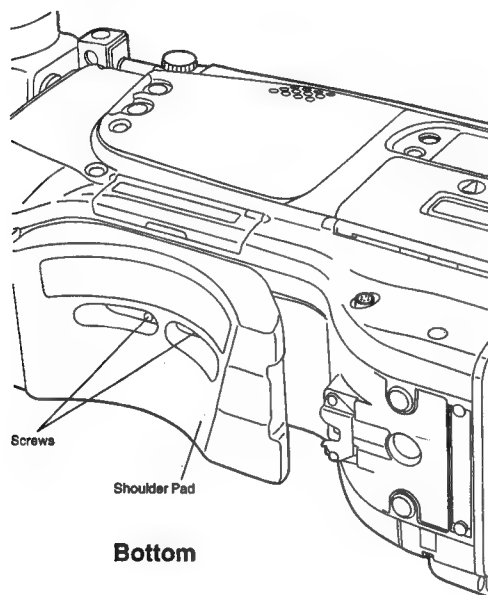


<Note>
When mounting and removing the shoulder belt, press on the top of the hooks to check that the belt is securely mounted.

Adjusting the Shoulder Pad Position

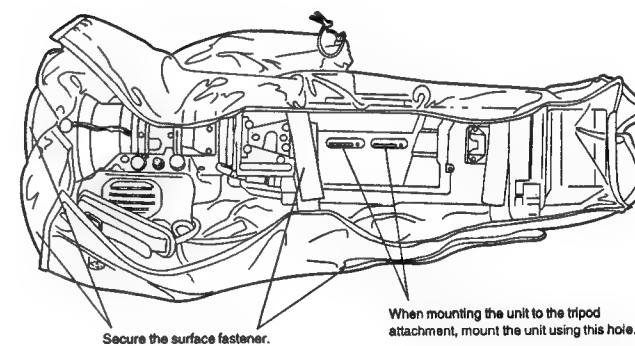
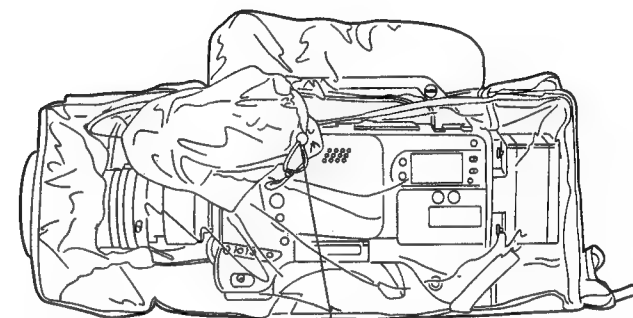
The shoulder pad can be slid up to $\frac{3}{4}$ " in the forward-backward direction from the centre position (the position when shipped from the factory). Adjust the shoulder pad position to facilitate operation of the unit.

- 1 Loosen the two screws.
- 2 Slide the pad in the forward-backward direction to select an appropriate position.
- 3 Tighten the screws to clamp the pad.



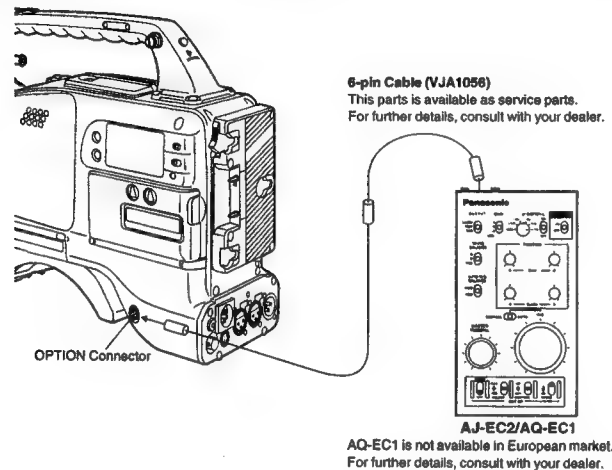
Attaching the Rain Cover

Attach the rain cover as shown in the figure below.



Connecting the AJ-EC2/AQ-EC1 Extension Control Unit (Option)

Connecting the AJ-EC2/AQ-EC1 extension control unit (option) allows a portion of the camera section functions to be operated by remote control. When the AJ-EC2/AQ-EC1 is connected and the POWER switches of the unit and AJ-EC2/AQ-EC1 are set to ON, the unit automatically enters remote control mode. The handling instructions included with the AJ-EC2/AQ-EC1 describe operations for when the AJ-EC2/AQ-EC1 is connected to an AQ series digital camera. When the AJ-EC2/AQ-EC1 is connected to the AJ-D800, some functions differ, and some features cannot be used.



<Notes>

- The POWER switches of the unit and AJ-EC2/AQ-EC1 must be set to OFF before the 6-pin cable is connected or disconnected.
- All adjustments and settings made using the switches and controls other than the menu setting section of the AJ-EC2/AQ-EC1 are erased when the unit's POWER switch is set to OFF. Also, adjustments and settings made using the AJ-EC2/AQ-EC1 cannot be written to setup cards. However, when the AJ-EC2/AQ-EC1 is connected again, these settings return to the AJ-EC2/AQ-EC1 settings. (Menu contents set with the menu setting section are saved.)

<Note>

The functions of the AJ-EC2/AQ-EC1 are limited as follows.

- The STORE switch does not function. (If the menu settings are changed while the AJ-EC2/AQ-EC1 is connected to the AJ-D800, the new menu settings are saved automatically as soon as the changes are made.) Note that the AJ-EC2/AQ-EC1 gain switch displays -3, 0 and III correspond to L, M and H, and the OUTPUT switch settings CAMERA, TEST and BAR to CAM/AUTO KNEE ON, CAM/AUTO KNEE OFF and BAR for each main unit.
- The Synchro scan and Super V modes cannot be used while the AJ-EC2/AQ-EC1 is connected to the unit.
- The lens iris (IRIS) control of the AJ-EC2/AQ-EC1 is valid only when the lens iris AUTO/MANUAL selector is set to AUTO.

Warning/Status Displays in the Viewfinder and Display Window

Displaying the Setting Menu Inside the Viewfinder

When the MENU SET/OFF switch is set to SET, the setting menu appears on the viewfinder screen. The setting menu is displayed in page units. The following table lists all pages contained in the setting menu as well as an outline of the functions for each page. The setting menu configuration can be changed according to the purpose.

Setting Menu Configuration

Page No.	Page name	Function outline	Reference
58	MARKER	Marker settings	Setting the Marker Displays
56	VF DISPLAY	Selection of viewfinder screen displays	Setting Display Items
59	CAMERA ID	Camera ID display settings	Setting the Camera ID Display
72	SHUTTER SPEED	Shutter speed/mode settings	Setting the Electronic Shutter
73	SYNCHRO SCAN	Synchro scan shutter speed settings	Setting the Electronic Shutter
52	I LED	I lamp display settings	Setting the I Lamp Display
81-82	SET UP CARD	Setup card	Setup card operations
107	MAIN FUNCTION	Used function settings	—
108-110	FUNCTION 1/5 to 5/5	Used function settings	Selecting Functions
62	TIME DATE	Time and date settings	Selecting Functions
64	SETTING LOW/MID/HIGH	Camera settings	Selecting Functions
115-119	LEVEL 1/6 to 6/6	Camera settings	Recording Adjustments
120	VF OPERATION	Viewfinder operations	Viewfinder
121	LENS ADJ	Lens adjustments	Lens
121-123	MENU SELECT 1/3 to 3/3	User menu ON/OFF settings	User Menu
124	AUTO SHADING	Automatic shading adjustments	Shading
50 124	DATA RESET	Resetting the setting menu	Returning to the default settings
124	DIAGNOSTIC	—	—

See the corresponding pages for a detailed description of each page's functions.

Warning/Status Displays in the Viewfinder and Display Window

Changing the setting menu configuration

The setting menu can be configured by selecting only the pages necessary for the application. Pages are selected using the MENU SELECT page of the engineer menu mode. When using the engineer menu, switch the unit to engineer mode as described below. The unit is switched to user mode by setting the MENU SET/OFF switch to "SET". The unit is switched to engineer mode by holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU SET/OFF switch to SET.

The user and engineer modes differ as follows.

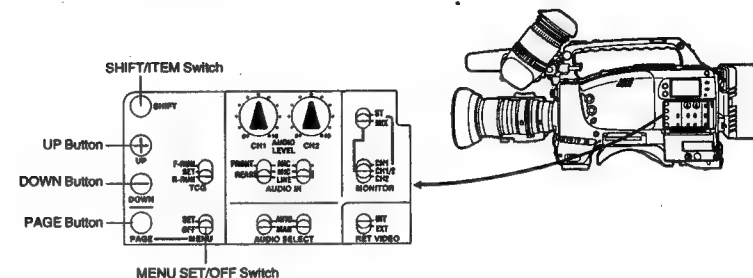
User mode: Only the selected pages the setting menu can be used. The data set on each page is written to the non-volatile memory, allowing it to be stored for extended periods of time.

Engineer mode: All pages contained in the setting menu can be used. In addition, the data set at each page is written to the non-volatile memory, allowing it to be stored for extended periods of time.

After completing the adjustments and settings with engineer mode, configuring a menu consisting only of frequently used pages allows the necessary pages to be called quickly.

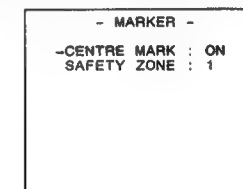
Basic Setting Menu Operations

The setting menu is operated using the MENU SET/OFF switch and the SHIFT/ITEM, UP, DOWN and PAGE buttons.



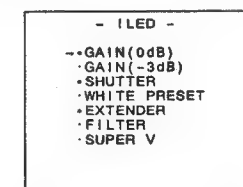
Displaying the setting menu

- 1 Set the MENU SET/OFF switch to SET.
The status displays at the top and bottom of the viewfinder screen disappear, and the page on which the previous setting menu operations were completed appears.
When the menu is used for the first time, the first of the selected pages appears.



Changing the page

- 1 Press the PAGE button.
The menu page changes each time the PAGE button is pressed.



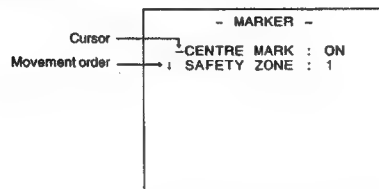
The page can also be changed using the UP and DOWN buttons as follows.

- **PAGE+UP:** The menu page is incremented continuously while the UP and PAGE buttons are held down.
- **PAGE+DOWN:** The menu page is decremented continuously while the DOWN and PAGE buttons are held down.

Warning/Status Displays in the Viewfinder and Display Window

Selecting the desired item

- 1 Press the SHIFT/ITEM switch.
Each time this button is pressed, the cursor (arrow) which indicates the selected item moves to the next item.



The item can also be selected using the UP and DOWN buttons as follows.

Changing the settings

Press the UP button to increase the setting.

- The setting is incremented by 1 level each time the UP button is pressed.

Press the DOWN button to decrease the setting.

- The setting is decremented by 1 level each time the DOWN button is pressed.

Changing the ON/OFF selection

The setting switches to ON or OFF each time the UP (or DOWN) button is pressed.

Returning to the default settings

The unit can be returned to the default settings (the settings when shipped from the factory or the engineer mode settings) by pressing the UP (or DOWN) button at the DATA RESET page of engineer mode*.

However, care should be taken as the flare and shading adjustment values cannot be returned to the default settings.

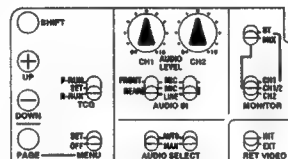
Quitting the menu

Set the MENU SET/OFF switch to OFF.

- The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

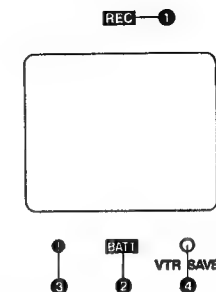
*Engineer mode

The menu for this mode is opened by holding down the SHIFT/ITEM and UP buttons simultaneously and then setting the MENU SET/OFF switch to the "SET" position.



Lamp Displays Inside the Viewfinder

The viewfinder displays are as follows.



1. REC (recording) lamp

This lamp lights (red) during recording, and flashes when warnings are issued.

- See "Warning System" (page 125) for a detailed description.

2. BATT (battery) lamp

When the battery voltage has dropped, this lamp begins flashing several minutes before the unit can no longer be operated, and lights when the unit can no longer be operated.

To prevent operation from being interrupted, exchange the battery quickly before the battery runs out.

3. I (irregular operation status warning) lamp

This lamp lights when the unit enters irregular operation status for any of the items set to ON at the I LED page of the setting menu. Applicable items are as follows.

Setting item	Setting contents
Gain (0 dB)	The gain is set to a value other than 0 dB.
Gain (-3 dB)	The gain is set to a value other than -3 dB.
SHUTTER switch	The switch is set to ON.
WHITE PRESET switch	The switch is set to PRESET.
Lens extender	The lens extender is being used.
Filter control	The control is set to a value other than 1.
SUPER V switch	The switch is set to ON.

- See "Setting the I Lamp Display" (next page) for selecting I lamp display items.

4. VTR SAVE (VTR power saving) lamp

This lamp lights when the VTR SAVE/STBY switch is set to SAVE. It is not lighted during recording.

<Note>

Regardless of the VTR SAVE/STBY switch, the unit automatically enters the SAVE state and the lamp lights either after two minutes when in the stopped state, or after the length of time set for the pause timer (the pause time) when in the paused state.

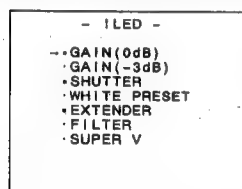
Lamp Displays Inside the Viewfinder

Setting the ! Lamp Display

Items subject to ! lamp display are selected at the ! LED page of the setting menu. (When shipped from the factory, the unit is set so that the ! LED page is not displayed.) To operate the ! LED page, switch the unit to engineer mode or select the ! LED page at the MENU SELECT page.

• See "Setting Menu Configuration" (page 47) for engineer mode and selection of displayed pages.

- 1 Set the MENU SET/OFF switch to SET.
The setting status displays disappear from the viewfinder screen, and the page on which the previous setting menu operations were completed appears. (When the menu is used for the first time, the first page appears.)
- 2 Press the PAGE button until the ! LED page shown below appears. (This operation can also be performed using the PAGE+UP/DOWN buttons.)



<Note>
.: ON
.: OFF

- GAIN (0 dB): This selects whether or not the ! lamp lights when the gain is set to any value other than 0 dB.
- GAIN (-3 dB): This selects whether or not the ! lamp lights when the gain is set to any value other than -3 dB.
- SHUTTER: This selects whether or not the ! lamp lights when the SHUTTER switch is set to ON.
- WHITE PRESET: This selects whether or not the ! lamp lights when the white balance memory channel is PRST.
- EXTENDER: This selects whether or not the ! lamp lights when the lens is in EXTENDER mode.
- FILTER: This selects whether or not the ! lamp lights when the filter is set to any value other than 3200K.
- SUPER V: This selects whether or not the ! lamp lights when SUPER V is set to ON.

- 3 Repeatedly press the SHIFT/ITEM button to move the cursor to the position of the desired item.
- 4 Press the UP and DOWN buttons to choose ! lamp lighted/not lighted for the selected item.
To select ON: Press the UP button. An asterisk (*) appears to the left of the item name.
To select OFF: Press the DOWN button. A period (.) appears to the left of the item name.
Repeat steps 3 and 4 to continue making ON/OFF settings for other items.
- 5 When menu operations have been completed, set the MENU SET/OFF switch to OFF.
The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

Status Displays Inside the Viewfinder Screen

In addition to images, messages indicating the unit's settings and operating status appear on the viewfinder screen. The centre marker and safety zone marker, etc. are also displayed.

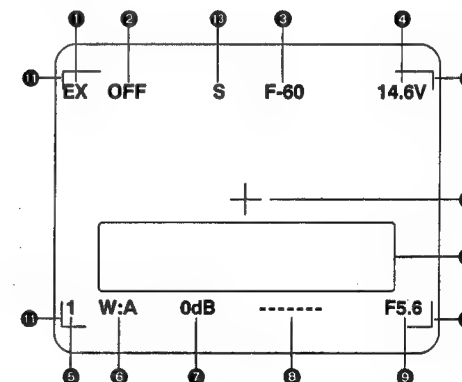
When the MENU SET/OFF switch is set to OFF, items set to SET at the VF DISPLAY page of the setting menu and using related switches appear at the top and bottom of the screen.

Messages informing of the setting contents or of the adjustment course or results can also be displayed for approximately 3 seconds when settings are changed, during the course of adjustments, or after adjustments have been completed.

• See "Selecting Display Items" (page 56) for selecting display items, "Display Mode and Setting Change Message" (page 57) for the setting change message, and "Setting the Marker Displays" (page 58) for the marker displays.

The display positions of all items which can be displayed are shown in the figure below.

1. Extender display
2. Shutter speed/mode display
3. Remaining tape length display
4. Remaining battery level display
5. Filter display
6. White balance memory display
7. Gain value display
8. Audio level display
9. Iris value display
10. Warning display
11. Safety zone marker
12. Centre marker
13. Super iris ON display



Status Displays Inside the Viewfinder Screen

1 Extender display

This is displayed when the lens extender is being used.

2 Shutter speed/mode display

This displays the shutter speed or shutter mode setting.

OFF: The shutter is not used.

1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000:

Shutter speeds (seconds) during standard mode.

1/29.9–1/252 (SYNCHRO SCAN):

Synchro scan mode is selected.

SUPER V: High vertical resolution mode is selected.

3 Remaining tape length display

This indicates the remaining tape length (minutes) for the VTR during recording.

Remaining tape length display

Display	Remaining tape length
F-60	Full to 60 minutes
60-55	60 to 55 minutes
55-50	55 to 50 minutes
50-45	50 to 45 minutes
45-40	45 to 40 minutes
40-35	40 to 35 minutes
35-30	35 to 30 minutes
30-25	30 to 25 minutes
25-20	25 to 20 minutes
20-15	20 to 15 minutes
15-10	15 to 10 minutes
10-5	10 to 5 minutes
5-0	5 to 0 minutes

The "5-0" display flashes when there is less than 3 minutes of tape remaining.

4 Remaining battery level display

When an Anton Bauer Digital Magnum Series battery is used to supply power to the unit, the remaining battery level is displayed numerically (%).

5 Filter display

This displays the type of filter selected.

6 White balance memory display

This displays the selected white balance automatic adjustment memory.

A: The WHITE BAL switch is set to A.

B: The WHITE BAL switch is set to B.

P: The WHITE BAL switch is set to PRST.

7 Gain value display

This displays the image amplifier gain setting (dB) set by the GAIN switch.

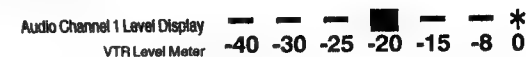
<Note>

When using an Anton Bauer Digital Magnum Series battery, the remaining battery level display continues to display the level for the Anton Bauer battery even if power supply is switched to an external power source near the end of the battery's power. However, note that the unit operates according to the external power source.

8 Audio level display

This displays the audio CH1 level.

During sine wave input, the audio level display corresponds roughly to the VTR level meter display as follows.



9 Iris value display

This displays the approximate iris setting (F number).

10 Warning display

This displays the black balance, white balance, auto knee function, super iris, super high gain and other warning displays.

11 Safety zone marker

This indicates the 80% or 90% (setting when shipped from the factory) range for the viewfinder screen area. The screen area percentage is selected at the MARKER page of the setting menu.

• See "Setting the Marker Displays" (page 58) for a detailed description.

12 Centre marker

This indicates the centre of the viewfinder screen. This marker is displayed when set to ON at the MARKER page of the setting menu.

13 Super Iris ON display

This indicates that the super iris is ON.

1) Iris value display

The iris value is displayed when using a lens with the iris value display function.

Status Displays Inside the Viewfinder Screen

Selecting Display Items

The items to be displayed on the viewfinder screen can be selected by switching the display ON/OFF setting independently for each item at the VF DISPLAY page. The items which can be selected are as follows.

- Display mode (See "Display Mode and Setting Change/Adjustment Course Message".)
- Extender display
- Shutter speed/mode display
- Remaining tape length display
- Remaining battery level display
- Filter display
- White balance memory display
- Gain value display
- Level meter display
- Iris value/super iris ON status display
- Camera ID display

• The camera ID is displayed when recording the colour bar according to the OUTPUT/AUTO KNEE switch setting. See "Setting the Camera ID" (page 59) for a detailed description.

Select the items to be displayed on the viewfinder screen.

- 1 Set the MENU SET/OFF switch to SET.
The page on which the previous setting menu operations were completed appears on the viewfinder screen. (When the menu is used for the first time, the first page appears.)
- 2 Press the PAGE button until the VF DISPLAY page shown below appears.
(This operation can also be performed using the PAGE+UP/DOWN function.)

Display mode	- VF DISPLAY -
Extender display	- DISP MODE : 3
Shutter speed/mode display	EXTENDER : ON
Remaining tape length display	SHUTTER : ON
Remaining battery level display	TAPE : ON
Filter display	BATTERY : ON
White balance memory display	FILTER : ON
Gain value display	WHITE : ON
Level meter display	GAIN : ON
Iris value/super iris ON status display	LEVEL METER : ON
Camera ID display	IRIS : S+IRIS
	CAMERA ID : ON

- 3 Press the SHIFT/ITEM button to move the cursor to the position of the desired item.
- 4 Press the UP and DOWN buttons to choose whether to display (ON) or not display (OFF) the selected item on the viewfinder screen.
The setting switches to ON or OFF each time the UP (or DOWN) button is pressed.
Repeat steps 3 and 4 when setting display ON/OFF for other items.
- 5 When menu operations have been completed, set the MENU SET/OFF switch to OFF.
The setting menu disappears from the viewfinder screen and the displays indicating the settings of the selected items appear.

Display Mode and Setting Change Message

Messages informing of the contents of changed settings and adjustment results can be limited in part of the displayed items or not displayed for all items.

The conditions under which messages are displayed and the corresponding display modes are shown in the table below.

Setting change/adjustment results messages and display modes

Conditions under which messages are displayed	Message	Display mode setting		
		1	2	3
When the filter selection is changed.	ND: n (n=1, 2, 3, 4)	x	x	○
When the gain setting is changed.	GAIN: n dB (n=-3, 0, 3, 6, 9, 12, 15, 18, 21, 24, 30)	x	x	○
When the WHITE BAL switch setting is changed.	WHITE: n (n=ACH, BCH, PRESET)	x	x	○
When the OUTPUT/AUTO KNEE switch is set to AUTO KNEE or OFF*)	AUTO KNEE: ON (or OFF)	x	○	○
When the shutter speed/mode setting is changed.	SS: 1/60 (or 1/120, 1/250, 1/500, 1/1000, 1/2000, S. SCAN, SUPER V)	x	○	○
When the white balance is adjusted (AWB)	Ex.) AWB: OK • See "Adjusting the White Balance" (page 66) for a detailed description.	x	○	○
When the black balance is adjusted (ABB)	Ex.) ABB: OK • See "Adjusting the Black Balance" (page 69) for a detailed description.	x	○	○

○: Message displayed

x: Message not displayed

*) The message is displayed for approximately 3 seconds immediately after the power for the unit is turned on.

Status Displays Inside the Viewfinder Screen

Changing the Display Mode

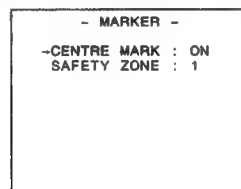
The display mode setting appears on the VF DISPLAY page of the setting menu.

- 1 Perform the operations in steps 1 to 3 of "Selecting Display Items" (page 56) to display the VF DISPLAY page of the setting menu on the viewfinder screen and align the cursor with the DISP MODE item.
- 2 Press the UP or DOWN button to select the desired display mode.
- 3 When menu operations have been completed, set the MENU SET/OFF switch to OFF.

Setting the Marker Displays

Display ON/OFF switching for the centre and safety zone markers and selection of 80% or 90% of the screen area as the safety marker range are performed at the MARKER page of the setting menu.

- 1 Set the MENU SET/OFF switch to SET.
The page on which the previous setting menu operations were completed appears on the viewfinder screen. (When the menu is used for the first time, the first page appears.)
- 2 Press the PAGE button until the MARKER page shown below appears.
(This operation can also be performed using the PAGE+UP/DOWN function.)



- 3 Press the SHIFT/ITEM button to move the cursor to the position of the desired item.
- 4 The setting switches to ON or OFF each time the UP (or DOWN) button is pressed.
- 5 When menu operations have been completed, set the MENU SET/OFF switch to OFF.
The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

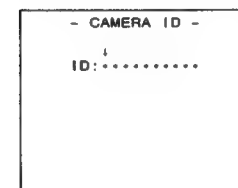
Setting the Camera ID

The camera ID can be set at the CAMERA ID page of the setting menu.
A camera ID of up to ten characters including English letters, symbols and spaces can be used.
The camera ID is output when the OUTPUT/AUTO KNEE switch is set to BARS and the colour bar signal is being recorded.

<Note>

When the setting menu is displayed, the camera ID is not displayed even if the colour bar signal is output.

- 1 Set the MENU SET/OFF switch to SET.
The page on which the previous setting menu operations were completed appears on the viewfinder screen. (When the menu is used for the first time, the first page appears.)
- 2 Press the PAGE button until the CAMERA ID page shown below appears.
(This operation can also be performed using the PAGE+UP/DOWN function.)



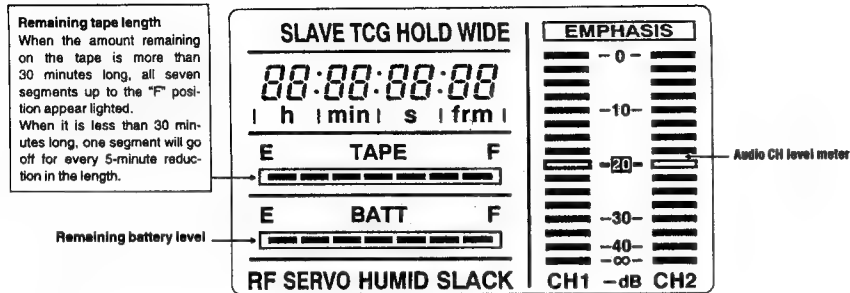
: The cursor is moved to the right (max. 10 spaces) by the SHIFT/ITEM button.
: English letters, symbols and space are switched by the UP and DOWN buttons.

Camera ID
(" ") indicates a space. This indication is only used at this menu page.)

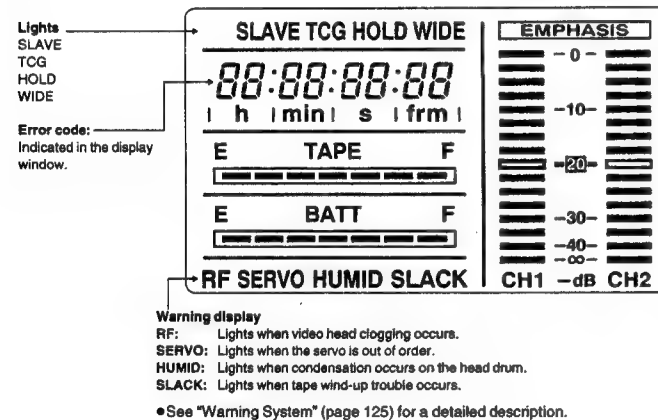
- 3 Press the UP (or DOWN) button until the desired character appears.
Each time the UP button is pressed, the character display changes in the order of English letters (A to Z)→numbers (0 to 9)→symbols [space, >, <,), (, ', ', --, _ , ~, /,]. Pressing the DOWN button changes the character display in the reverse order.
- 4 Press the SHIFT/ITEM button to advance the cursor to the next position and return to step 3 to set the characters.
- 5 When menu operations have been completed, set the MENU SET/OFF switch to OFF.
The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

Displays

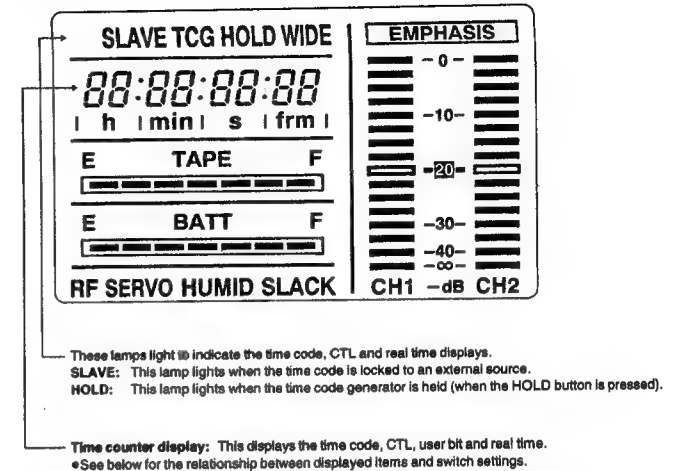
Remaining Battery Level and Audio Level Displays



VTR Section Operation/Status-Related Displays



Time Code-Related Displays



Relationship between the TCG and DISPLAY switch setting positions and the time counter display
The item displayed in the time counter display is determined by the TCG switch and DISPLAY switch settings.

Time code-related switch settings and display items

TCG switch position	DISPLAY switch position	Displayed item
SET	TC or CTL	Time code
	UB	User bit
F-RUN or R-RUN	CTL	CTL
	TC	Time code
	UB	User bit

Adjusting the Time and Date

Adjustment and setup using the setting menu

1. Hold down the SHIFT/ITEM and UP buttons and set the MENU SET/OFF switch to SET. The unit switches to ENG mode.
The page on which the previous setting menu operations were completed appears on the viewfinder screen.
(When the menu is used for the first time, the first page appears.)
2. Press the PAGE button until the TIME/DATE page shown below appears.
(This operation can also be performed using the PAGE+UP/DOWN function.)

```
- TIME/DATE -  
  
-YEAR : 95  
MONTH : 01  
DAY : 01  
HOUR : 00  
MINUTE : 00  
  
■TIME/DATE SET
```

3. Press the SHIFT/ITEM button to select the item to be changed.
4. Press the UP (or DOWN) button to change the setting value.
The number is incremented by +1 each time the UP button is pressed and decremented by -1 each time the DOWN button is pressed.

```
- TIME/DATE -  
  
YEAR : 95  
MONTH : 01  
DAY : 01  
HOUR : 00  
-MINUTE : 00  
  
■TIME/DATE SET
```

5. When the settings have been completed, press the SHIFT/ITEM button to select TIME/DATE SET and then press the UP (or DOWN) button. The time starts from when the button is pressed.

```
■TIME/DATE SET
```

6. When menu operations have been completed, set the MENU SET/OFF switch to OFF.
The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

<Note>

The seconds cannot be set and always start from 0 seconds.

Adjustments and Setup During Recording

Adjustments and Setup Using the Setting Menu

Adjustments and setup operations during recording are performed at the setting menu. Setting menu operations are basically performed according to the procedures described on page 49.

However, these procedures vary slightly according to the item.

Items which can be adjusted or set up at the setting menu are as follows.

Adjustment/setup items at the setting menu

Adjustment/setup item	Page name	Operation reference
Setting the gain selector value	SETTING (LOW/MID/HIGH)	Setting the Gain Selector Value, Setting the DTL and gamma, etc.
Selecting the shutter speed/mode to be used	SHUTTER SPEED	Setting the Electronic Shutter
Setting the synchro scan mode shutter speed	SYNCHRO SCAN	Setting the Electronic Shutter
Selecting required functions	FUNCTION 1/5 to 5/5	Selecting Functions
Shading adjustment	AUTO SHADING	Shading Adjustment
Setup card data operations	SET UP CARD	Setup Card Operations

Adjustments and Setup During Recording

Setting the Gain Selector Value

When shooting in locations without sufficient brightness, bright images can be obtained by raising the gain. However, care should be taken as raising the gain also increases the noise.

The gain value for the image amplifier is selected by the GAIN switch. The gain values corresponding to the L, M and H positions of the GAIN switch are set at the MASTER GAIN page of the setting menu.

Setting the gain selector value

- 1 Set the MENU SET/OFF switch to SET.
The page on which the previous setting menu operations were completed appears on the viewfinder screen.
(When the menu is used for the first time, the first page appears.)
- 2 Press the PAGE button to display the SETTING (LOW/MID/HIGH) page shown below.
(This operation can also be performed using the PAGE+UP/DOWN function.)

- LOW SETTING -	
-MASTER GAIN	: 0dB
H.DTL LEVEL	: 13
V.DTL LEVEL	: 10
DTL CORING	: 03
H.DTL FREQ.	: 03
DARK DTL	: 00
LEVEL DEPEND	: 01
MASTER GAMMA	: 0.47
BLACK STRETCH	: OFF
MATRIX TABLE	: A

- 3 Press the SHIFT/ITEM button repeatedly to move the cursor to the MASTER GAIN position.
- 4 Press the UP or DOWN button to set the gain value.
The gain value can be set freely regardless of size from among -3, 0, 3, 6, 9, 12, 15, 18, 21, 24 and 30 dB.
When resetting the gain values to the settings when shipped from the factory (LOW=0 dB, MID=9 dB, HIGH=18 dB), select MENU INIT. at the DATA RESET page of the setting menu and press the UP or DOWN button.
- 5 When menu operations have been completed, set the MENU SET/OFF switch to OFF.
The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

Selecting Functions

VTR operation functions can be selected at the FUNCTION 3/5 page of the setting menu.

Selecting the required functions

- 1 Set the MENU SET/OFF switch to SET.
The page on which the previous setting menu operations were completed appears on the viewfinder screen.
(When the menu is used for the first time, the first page appears.)
- 2 Press the PAGE button to display the FUNCTION 3/5 page.
(This operation can also be performed using the PAGE+UP/DOWN function.)

- FUNCTION 3/5 -	
-HUMID OPE	: OFF
26P CONTROL	: OFF
REC START	: NORMAL
UB MODE	: USER
PAUSE TIMER	: 30
BATTERY SEL	: NiCd-12
TCG VF DISP	: OFF

- 3 Press the SHIFT/ITEM button to move the cursor to the position of the function to be changed.
- 4 Press the UP (or DOWN) button to change the setting of the selected function.
If settings for other functions are also to be changed, return to step 3.
- 5 When menu operations have been completed, set the MENU SET/OFF switch to OFF.
The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

Adjusting the White Balance/Black Balance

Adjusting the White Balance

Adjusting the white balance and black balance in the order of AWB (white balance adjustment)→ABB (black balance adjustment)→AWB will provide a better picture. Normally, the white balance and black balance do not need to be readjusted even if the power is turned off and then on again.

However, the white balance must be readjusted when the lighting conditions change.

If black balance and white balance adjustments are started when the display mode is set to "2" or "3", messages informing of the adjustment course and results will appear on the viewfinder screen. Set the display mode to "1" to not display these messages.

• See "Display Mode and Setting Change Message" (page 57) for a description of setting the display mode.

<Notes>

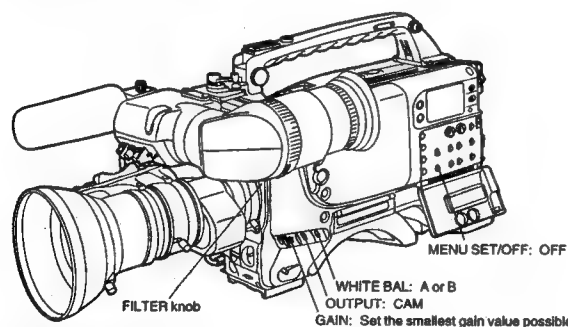
• The white balance and black balance cannot be adjusted while the setting menu appears on the viewfinder screen. Therefore, be sure to set the MENU SET/OFF switch to OFF.

• ABB must be executed again when the MASTER GAIN values on the LOW SETTING, MID SETTING and HIGH SETTING pages of the setting menu are changed, the S IRIS SW item is set to +30 dB at the FUNCTION 2/5 page of the setting menu, or the GAMMA (ON/OFF) item is switched at the FUNCTION 1/5 page of the setting menu.

• With artificial lights, particularly with fluorescent lights and mercury-arc lamps, the strength of the R, G and B colours changes in synchronization with the power line frequency even if the brightness of these lights appears to be constant. Especially in areas where the power line frequency is 60 Hz, the vertical synchronizing frequency (approx. 50 Hz) of the TV and the frequency (60 Hz) of the lighting tend to interact. This gives rise to flicker and to a phenomenon where the hue changes along with the passage of time, and it is impossible to obtain the proper white balance.

These phenomena can be reduced by setting the shutter speed to 1/60. For this reason, whenever the unit is used under fluorescent or mercury-arc lamps and at a frequency of 60 Hz, the shutter speed must be set to 1/60 and the white balance obtained. This shutter speed of 1/60 should also be used during shooting.

- 1 Set the switches as shown in the figure.



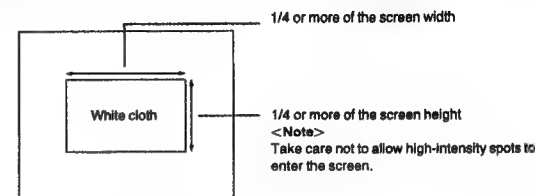
If the settings of the GAIN and WHITE BAL switches are changed, a message informing of the new setting will appear for about 3 seconds at the setting change message display position on the viewfinder screen. (However, the message appears only when the display mode is set to "3".)

- 2 Select the FILTER knob setting in accordance with the lighting conditions.

• See FILTER knob (page 15) in the Shooting (Recording)/Playback Function Section for examples of FILTER knob settings. If the setting of the FILTER knob is changed, a message informing of the new setting will appear for about 3 seconds at the setting change message display position on the viewfinder screen. (However, the message appears only when the display mode is set to "3".)

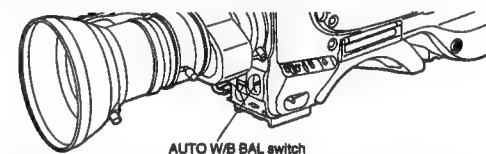
- 3 Place the white pattern over a location with the same conditions as the light source illuminating the subject and zoom up to project white on the screen.

A white object (white cloth, white wall) near the subject can also be used. The white area required is as shown below.

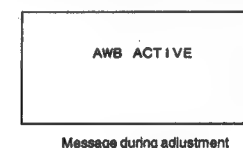


- 4 Adjust the iris of the lens.

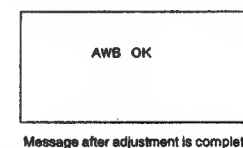
- 5 Press the AUTO W/B BAL switch to the WHT side and release the switch. The switch returns to the centre and the white balance is automatically adjusted.



- 6 During the adjustment, the following message appears on the viewfinder screen. (However, the message appears only when the display mode is set to "2" or "3".)



- 7 Adjustment is completed after approximately 1 second (the following message appears) and the adjustment value is automatically stored in the memory (A or B) selected in step 1.



<Note>

If a lens equipped with the automatic iris function is used, the iris may experience hunting¹⁾. In these cases, adjust the iris gain knob (the knob marked IG, IS, S, etc.) on the lens.

• See the Handling Instructions for the lens for a detailed description.

1) Hunting: The auto iris responds repeatedly causing the image to become darker and brighter.

Adjusting the White Balance/Black Balance

When the White Balance Cannot be Automatically Adjusted

An error message will appear on the viewfinder screen.
(The message appears when the display mode is set to "2" or "3".)
The displayed messages are as follows.

Error messages related to white balance adjustment

Error message	Meaning	Treatment
COLOUR TEMP. HIGH	The colour temperature is too high.	Select an appropriate filter.
COLOUR TEMP. LOW	The colour temperature is too low.	Select an appropriate filter.
LOW LIGHT	There is insufficient illumination.	Increase the illumination or gain.
LEVEL OVER	There is too much illumination.	Decrease the illumination or gain.

If the above error messages appear, carry out the respective treatment attempt to adjust the white balance again.

If the error message continues to appear even after repeated attempts, consult your dealer.

<Note>

The white balance cannot be adjusted while the setting menu is displayed on the viewfinder screen. Therefore, be sure to set the MENU SET/OFF switch to OFF.

When there is no Time to Adjust the White Balance

Set the WHITE BAL switch to PRST.

The white balance for the filter is automatically adjusted according to the setting position of the FILTER knob (outside).

White balance memories

The white balance has two memory systems: A and B.

Adjustment values for each filter can automatically be stored in the memory corresponding to the setting (A or B) of the WHITE BAL switch. The unit contains 4 filters, making a total of 8 (4×2) adjustment values which can be stored.

If FILTER INH on the FUNCTION 2/5 page of the setting menu is set to ON, the A and B systems can be limited to one memory each.

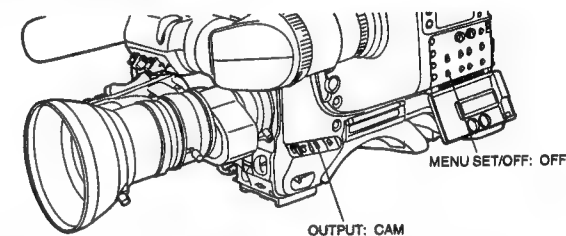
In this case, the memory contents are not linked to the filters.

The black balance must be adjusted in the following cases.

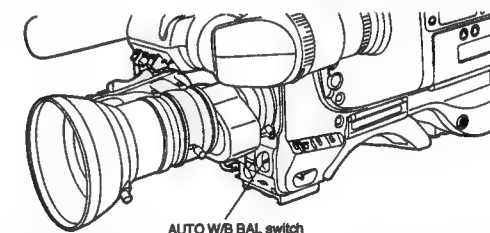
- When the unit is used for the first time
- When the unit is first used after an extended period of non-use
- When the unit is used under conditions where the ambient temperature has changed by a wide margin
- When the gain selector value is changed
- When the SUPER IRIS button setting is changed (when setting is changed to +30 dB)
- When the gamma ON/OFF is changed

Adjusting the Black Balance

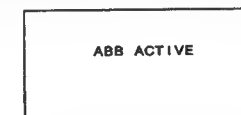
- 1 Set the switches as shown in the figure.



- 2 Press the AUTO W/B BAL switch to the ABB side and then release the switch. The switch returns to the centre and the black balance is automatically adjusted.



- 3 During the adjustment, the following message will appear on the viewfinder screen. (However, the message appears only when the display mode is set to "2" or "3".)

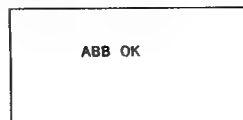


Message during adjustment

- The lens iris automatically goes to the "CLOSE" position during the adjustment.

Adjusting the White Balance/Black Balance

- 4 Adjustment is completed after a few seconds (the following message appears) and the adjustment value is automatically stored in the memory.



Message after adjustment is completed

<Notes>

- Check that the lens connector is connected and that the iris of the lens is set to CLOSE.
- During black balance adjustment, the iris automatically goes to the shaded status.
- During black balance adjustment, the gain selector circuit switches automatically. In addition, flicker and noise may appear on the viewfinder screen, but this does not indicate a malfunction.
- The black balance cannot be adjusted while the setting menu is displayed on the viewfinder screen. Therefore, be sure to set the MENU SET/OFF switch to OFF.
- If black shading is not satisfactory even when ABB is OK, open the AUTO SHADING page of the setting menu and execute black shading adjustment. (See page 124.)

Setting the Electronic Shutter

Shutter Modes

The shutter modes which can be used with the unit's electronic shutter and the shutter speeds which can be selected are as follows.

Shutter modes and shutter speeds which can be selected

Mode	Shutter speed	Application
Standard	1/60, 1/120, 1/250, 1/500, 1/1000 and 1/2000 (seconds)	This mode is used to shoot clear images of quickly moving subjects.
SYNCHRO SCAN	248 steps in the range from 50.5 Hz to 252 Hz	This mode is used to reduce horizontal stripe patterns for monitor screens with a vertical scanning frequency of 50 Hz or more.
SUPER V		This mode is used to increase the vertical resolution.

<Notes>

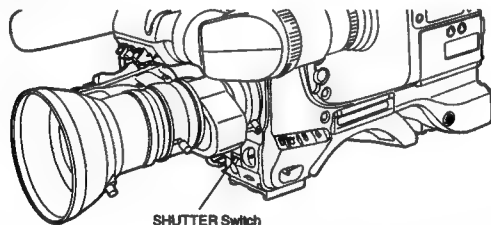
- Increasing the shutter speed lowers the camera sensitivity regardless of electronic shutter mode.
- If the iris is set to AUTO, the iris opens and the depth of the focuses decreases as the shutter speed rises.

Setting the Electronic Shutter

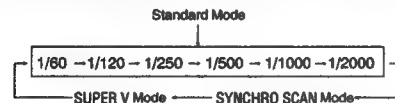
Setting the Shutter Mode/Speed

- The shutter speed during shutter mode and standard mode is set by the SHUTTER switch.
- During SYNCHRO SCAN mode, the shutter speed can be set beforehand at the SYNCHRO SCAN page of the setting menu. The shutter speed can also be set by the UP and DOWN buttons during SYNCHRO SCAN mode. (In addition, if S. SCAN SEL on the FUNCTION 2/5 page of the setting menu is set to ON, the shutter speed can also be varied by the SUPER IRIS and MODE CHECK switches on the side panel. However, note that the SUPER IRIS and MODE CHECK functions do not operate at this time.)
- The shutter speed selection range can be limited to the required range and whether to use special operation modes (SYNCHRO SCAN or SUPER V) can be selected at the SHUTTER SPEED page of the setting menu.

- 1 Perform the operations outlined in "Changing the Display Mode" (page 58) and set the display mode to "2" or "3" at the VF DISPLAY page of the setting menu.
- 2 Press the SHUTTER switch from the ON position to the SEL side. The current shutter setting appears in the setting change message display position on the viewfinder screen.
Ex.: 1/120, 1/50.5, etc.



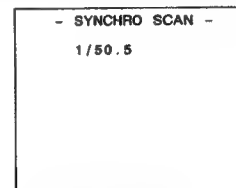
- 3 Press the SHUTTER switch to the SEL side repeatedly until the desired mode or speed appears. When all modes and speeds can be displayed, the display changes in the order shown below. If the required shutter speeds and modes have been designated beforehand, only the designated speeds or modes appear.



- When the unit is shipped from the factory, SUPER V mode is not specified and is therefore not displayed.

Setting the Synchro Scan Mode

- 1 Set the MENU SET/OFF switch to SET.
The page on which the previous setting menu operations were completed appears on the viewfinder screen. (When the menu is used for the first time, the first page appears.)
- 2 Press the PAGE button repeatedly until the SYNCHRO SCAN page shown below appears. (This operation can also be performed using the PAGE+UP/DOWN function.)



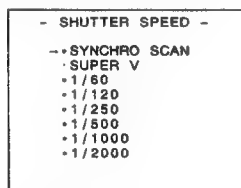
- 3 Press the UP (the value increases) or DOWN (the value decreases) button repeatedly to display the desired frequency. The frequency can be switched continuously within the range of 50.5 Hz to 252.0 Hz.
- 4 When menu operations have been completed, set the MENU SET/OFF switch to OFF. The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.
(If S. SCAN MODE SEL on the FUNCTION 2/5 page of the setting menu is set to ON, the shutter speed can be varied by the SUPER IRIS and MODE CHECK switches. However, care should be taken at this time as the SUPER IRIS and MODE CHECK functions cannot be operated only during SYNCHRO SCAN mode.)

Setting the Electronic Shutter

Changing the Shutter Speed/Mode Selection Range

The shutter speed selection range can be limited to the required range and whether to use a special operation mode can be selected at the SHUTTER SPEED page of the setting menu. The unit is set so that the SHUTTER SPEED page is not displayed when shipped from the factory. To operate the SHUTTER SPEED page, switch the unit to engineer mode or select the SHUTTER SPEED page at the MENU SELECT page beforehand.

- 1 Set the MENU SET/OFF switch to SET.
The page on which the previous setting menu operations were completed appears on the viewfinder screen. (When the menu is used for the first time, the first page appears.)
- 2 Press the PAGE button repeatedly until the SHUTTER SPEED page shown below appears.
(This operation can also be performed using the PAGE+UP/DOWN function.)



<Note>
The ON/OFF status for each item is indicated by displaying an asterisk (*) or period (·) in front of the item on the screen.

- 3 Press the SHIFT/ITEM button repeatedly to move the cursor to the position of the mode or shutter speed to be set.
- 4 The selected mode or speed changes from used (ON) to not used (OFF) and vice versa each time the UP (or DOWN) button is pressed.
- 5 When menu operations have been completed, set the MENU SET/OFF switch to OFF. The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

<Note>

When operating the unit from the AJ-EC2/AQ-EC1 extension control unit (option), even if the SHUTTER SPEED page is operated from the unit, the switches of the AJ-EC2/AQ-EC1 have priority regarding the actual shutter speed.

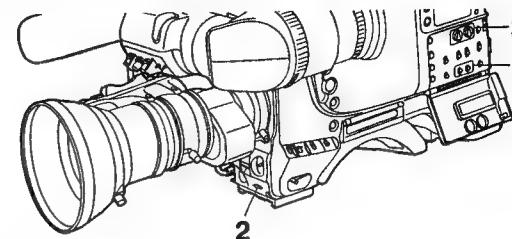
• See "Setting Menu Configuration" (page 47) for a description of engineering mode and selecting display pages.

Changing the Iris Automatic Adjustment Reference Value

To change the reference value, change the A. IRIS LEVEL value on the LEVEL 6/6 page of the setting menu using the UP or DOWN button.

Adjusting the Audio Level

If the AUTO SELECT CH1/CH2 selector switch is set to AUTO, the input levels of audio CH1 and CH2 are automatically adjusted. If the level of audio channels 1 and 2 to be manually adjusted, perform the following operations.



Manually Adjusting the Audio Level

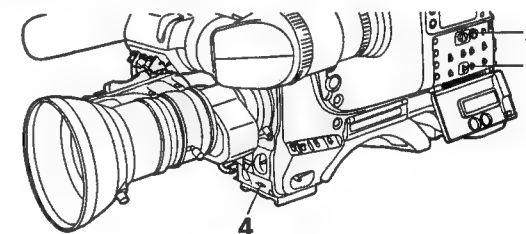
- 1 Set the AUTO SELECT CH1/CH2 selector switch to MAN.
- 2 Turn the AUDIO LEVEL CH1 control at the bottom of the front panel completely to the right.
- 3 Turn the AUDIO LEVEL CH1/CH2 controls to adjust the audio level so that the level meter appears up to 0 dB at the maximum volume.

Limiter

When the audio level is adjusted manually, the limiter circuit operates with respect to excessive input. Limiter circuit operation can be set to ON and OFF at the setting menu.

Adjusting the Audio CH1 Level from the Viewfinder

The audio CH1 level can be adjusted by the AUDIO LEVEL CH1 control at the bottom of the front panel while watching the viewfinder.



- 1 Set the AUTO SELECT CH1 switch to MAN.
- 2 Turn the AUDIO LEVEL CH1 control on the side panel completely to the right.
- 3 Set LEVEL METER on the VF DISPLAY page of the setting menu to ON. The audio level display appears on the viewfinder screen.

Adjusting the Audio Level

- 4 Turn the AUDIO LEVEL CH1 control at the bottom of the front panel to adjust the input volume so that the audio level display appears as shown below.
- When the input volume is normal, the audio level display turns ON up to the sixth of the seven level display bars from the left.
 - When the rightmost (0 dB) turns asterisk (*) mark, the input volume is excessive. Adjust the level so that the seventh (0 dB) does not turn - mark.

— — — ■ — — *
-40 -30 -25 -20 -15 -8 0

When the optimal level cannot be set

The maximum attenuation of the AUDIO LEVEL CH1 control at the bottom of the front panel is about 20 dB. When the optimal level cannot be set within this range, adjust the level using the AUDIO LEVEL CH1 control on the side panel.

Using the AUDIO LEVEL CH1 controls at the bottom of the front panel and on the side panel

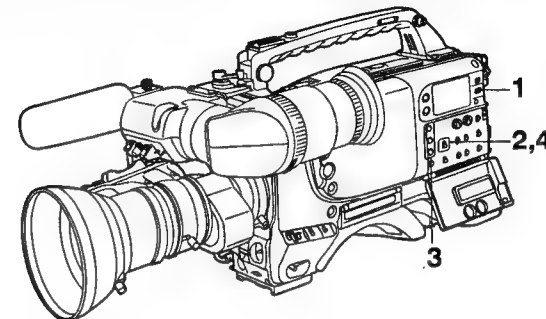
Normally, the control at the bottom of the front panel is turned completely to the right and the recording level is adjusted using the control on the side panel.

The control at the bottom of the front panel is used to throttle the level when the input level increases suddenly during recording.

Setting the Time Data

Setting the Time Code

When using both the user bit and the time code, set the user bit first. If the time code is set first, the time code generator will stop while the user bit is being set, causing the set time code to become inaccurate. The time code can be set within the range of 00:00:00:00 to 23:59:59:24.



- 1 Set the DISPLAY switch to TC.

- 2 Set the TCG switch to SET.

- 3 Set the time code using the SHIFT/ITEM, UP and DOWN buttons.

SHIFT/ITEM button: This is used to cause the digit which is to be set to flash. Each time it is pressed, the flashing digit moves to the right.

UP button: This increments by 1 the figure of the flashing digit.

DOWN button: This decrements by 1 the figure of the flashing digit.

- 4 Set the TCG switch.

Set the switch to F-RUN when the time code is to be advanced regardless of the VTR's operation.

Set the switch to R-RUN when the time code is to be advanced only while recording is in progress.

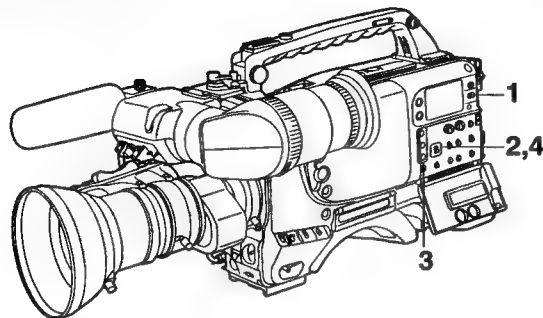
Time code status during battery replacement

The back-up mechanism functions even while replacing the battery to allow the time code generator to continue operating for extended periods of time (approx. 1 year).

Setting the Time Data

Setting the User Bit

Setting the user bit allows up to 8 digits of hexadecimal data such as memos (date, time), etc. to be recorded in the sub code track.



- 1 Set the DISPLAY switch to UB.
- 2 Set the TCG switch to SET.
- 3 Set UB MODE on the FUNCTION 3/5 page of the setting menu to REAL.
- 4 Set the user bit using the SHIFT/ITEM, UP and DOWN buttons.
SHIFT/ITEM button: This is used to cause the digit which is to be set to flash. Each time it is pressed, the flashing digit moves to the right.
UP/DOWN buttons: These increment/decrement by 1 the figure of the flashing digit.

The hexadecimal characters A to F appear as follows.

Hexadecimal	A	B	C	D	E	F
Display	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>

- 5 Set the F-RUN/R-RUN switch to F-RUN or R-RUN.

User bit memory function

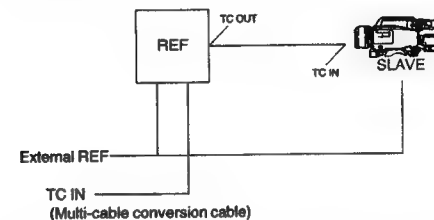
The user bit setting (except for the real time) is automatically stored in the memory and held even after the power is turned off. However, care should be taken as the settings are not stored in the memory if the time from when the power was turned on until the setting operations are completed and the power is turned off is less than 20 seconds.

Locking the Time Code to an External Source

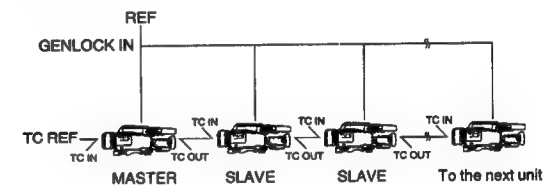
The time code generator of the VTR section can be locked to an external generator.

Example of connections for external locking

Example 1: Locking the time code to an external signal

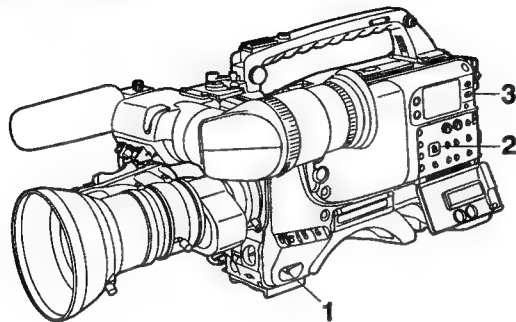


Example 2: Connecting multiple units and using one unit as the reference



Setting the Time Data

External Lock Operation Procedure



- 1 Set the POWER switch to ON.
- 2 Set the F-RUN/R-RUN switch to F-RUN.
- 3 Set the DISPLAY switch to TC.
- 4 Supply reference time code and reference video signals with a phase relationship which meets the time code standards to the TC IN and GENLOCK IN connectors, respectively.

This locks the built-in time code generator to the reference time code. After about 10 seconds have passed since the time code generator was locked, the external lock status is maintained even if the external reference time code is disconnected. However, if the reference time code is disconnected during recording (REC), the servo lock will be thrown out of order.

<Note>

When the external locking operation is performed, the time code is locked instantly to the external time code and the same value as the external code value appears in the counter display position. Do not set the VTR to recording mode for several seconds until the sync generator has stabilized.

Setting Time Data

User bit setting during external locking

When the time code is locked to an external source, only the time data is locked to the time data of the time code from the external source. Accordingly, the user bit can be set independently for each unit. The user bit can also be locked to the user bit of the time code from the external source.

• Consult your dealer for a detailed explanation.

Releasing the external lock

Stop supplying the external time code and then set the F-RUN/R-RUN switch to R-RUN.

Switching the power supply from the battery to an external power supply during external locking

In order to maintain power supply continuity for the time code generator, connect the external power supply to the DC IN connector before unplugging the battery pack. If the battery pack is unplugged first, the external locking continuity of the time code cannot be assured.

Synchronizing the camera section to an outside source during external locking

While the time code is locked to an external source, the camera section is genlocked by the reference video signal input to the GENLOCK IN connector.

Setup Card Operations

Setting menu contents can be stored using setup cards (option). This data can then be used to quickly recreate the appropriate setup conditions. Subject data, etc. can also be stored on setup cards. See the Setup Card Application Instructions for a detailed description.

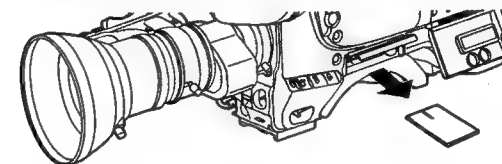
• Setup cards are optional, and general purpose memory cards (S RAM 64 kbyte or more) can be used.

Setup Card Handling

Setup cards can be inserted and ejected regardless of whether the power is on or off. However, setup cards should not be inserted or ejected during recording as this may result in misoperation.

Ejecting setup cards

Lift up on the lower edge of the cover to open the cover and remove the setup card.

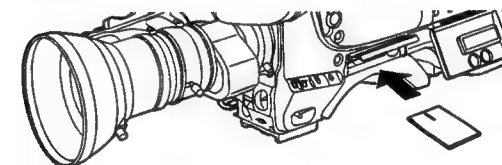


<Note>

Take care not to touch the connectors at the front of the setup card.

Inserting setup cards

Position the unit so that the panel with the logo faces you, insert the setup card into the setup card insertion slot and then close the cover.



<Note>

Check that the unit is positioned with the logo facing you and that the characters are facing the correct direction, and then insert the card. Be sure to insert the card in the correct direction. If the card is difficult to insert, the card may be backwards or upside-down. In these cases, do not attempt to force in the card, but check whether the card is backwards or upside-down and then reinsert the card.

Usage and storage precautions

The following points should be observed when using and storing setup cards.

• Avoid high temperatures and humidity.

• Do not expose setup cards to water.

• Avoid electrostatic charges.

Store setup cards inserted in the unit with the cover closed.

Setup Card Operations

Setup Card Data Operations

Operations to store setting data on setup cards and read out stored data are performed at the SET UP CARD page of the setting menu.

<Note>

When operating the unit with a remote controller, the SET UP CARD page cannot be operated from the unit.

Formatting setup cards

- 1 Set the MENU SET/OFF switch to SET. The page on which the previous setting menu operations were completed appears on the viewfinder screen. (When the menu is used for the first time, the first page appears.)
- 2 Press the MENU switch repeatedly until the SET UP CARD page shown below appears. (This operation can also be performed using the PAGE+UP/DOWN function.)

```
- SET UP CARD -  
-READ (-CAM)  
WRITE (-CARD)  
CARD CONFIG.  
ID READ/WRITE : ON  
FUNCTION1-2R/W: ON  
L/M/H SET R/W : ON  
LEVEL 1-6 R/W : ON
```

- 3 Press the SHIFT/TEM button repeatedly to move the cursor to the CARD CONFIG. position.
- 4 Press the UP (or DOWN) button. When the setup card has been formatted, the message shown below appears.

<Note>

When setup cards are formatted, the setting conditions at that time are also input simultaneously.

```
- SET UP CARD -  
READ (-CAM)  
WRITE (-CARD)  
-CARD CONFIG.  
ID READ/WRITE : ON  
FUNCTION1-2R/W: ON  
L/M/H SET R/W : ON  
LEVEL 1-6 R/W : ON  
  
FORMAT OK
```

- 5 When menu operations have been completed, return the MENU SET/OFF switch to OFF. The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

When data is not written

If the following error messages appear when the UP (or DOWN) button is pressed in step 4, the data is not written.

Data format error messages

Error message	Condition	Countermeasure
WRITE PROTECT	The write protect switch on the side of the card is set to ON.	Set the write protect switch on the side of the card to OFF.
NO CARD	A setup card is not inserted.	Insert a card.
ERROR	The disk cannot be formatted.	The card may be defective. Replace the card.

Setup Card Operations

Writing set data to cards

- 1 Set the MENU SET/OFF switch to SET. The page on which the previous setting menu operations were completed appears on the viewfinder screen. (When the menu is used for the first time, the first page appears.)
- 2 Press the MENU switch repeatedly until the SET UP CARD page shown below appears. (This operation can also be performed using the PAGE+ UP/DOWN function.)

```

- SET UP CARD -
-READ (-CAM)
WRITE (-CARD)
CARD CONFIG.
ID READ/WRITE :ON
FUNCTION1-2R/W:ON
L/M/H SET R/W :ON
LEVEL 1-6 R/W :ON
    
```

- 3 Press the SHIFT/ITEM button repeatedly to move the cursor to the WRITE (->CARD) position.
- 4 Press the UP (or DOWN) button. When writing is complete, the message shown below appears.

```

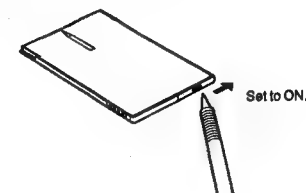
- SET UP CARD -
READ (-CAM)
-WRITE (-CARD)
CARD CONFIG.
ID READ/WRITE :ON
FUNCTION1-2R/W:ON
L/M/H SET R/W :ON
LEVEL 1-6 R/W :ON

WRITE OK
    
```

- 5 When menu operations have been completed, return the MENU SET/OFF switch to OFF. The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status appear at the top and bottom of the viewfinder screen.

Protecting stored data

If the setup card's WRITE PROTECT switch is set to ON, data is not rewritten even if the UP (or DOWN) button is pressed in step 4.



When data is not written

If the following error messages appear when the UP (or DOWN) button is pressed in step 4, the data is not written.

Data writing error messages

Error message	Condition	Countermeasure
NO CONFIG	The setup card is not formatted.	Format the card.
NO CARD	A setup card is not inserted.	Insert a card.
WRITE PROTECT	The write protect switch on the side of the card is set to ON.	Set the write protect switch on the side of the card to OFF.
ERROR	Data cannot be written on the card.	The card may be defective. Replace the card.

Setup Card Operations

Reading out data stored on cards

- 1 Set the MENU SET/OFF switch to SET. The page on which the previous setting menu operations were completed appears on the viewfinder screen. (When the menu is used for the first time, the first page appears.)
- 2 Press the PAGE switch repeatedly until the SET UP CARD page shown below appears. (This operation can also be performed using the PAGE+UP/DOWN function.)

```

- SET UP CARD -
-READ (-CAM)
WRITE (-CARD)
CARD CONFIG.
ID READ/WRITE :ON
FUNCTION1-2R/W:ON
L/M/H SET R/W :ON
LEVEL 1-6 R/W :ON

```

- 3 Press the SHIFT/ITEM button to move the cursor to the READ (→CAM) position.
- 4 Press the UP (or DOWN) button. When readout is complete, the message shown below appears.

```

- SET UP CARD -
-READ (-CAM)
WRITE (-CARD)
CARD CONFIG.
ID READ/WRITE :ON
FUNCTION1-2R/W:ON
L/M/H SET R/W :ON
LEVEL 1-6 R/W :ON

READ OK

```

- 5 When menu operations have been completed, set the MENU SET/OFF switch to OFF. The setting menu disappears from the viewfinder screen and the displays indicating the unit's current status based on the data read out from the setup card appear at the top and bottom of the viewfinder screen.

When data is not read out

If the following error messages appear when the UP (or DOWN) button is pressed in step 4, the data is not read out.

Data readout error messages

Error message	Condition	Countermeasure
NO CONFIG	The setup card is not formatted.	Format the card.
NO CARD	A setup card is not inserted.	Insert a card.
ERROR	Data cannot be read out.	Data written by devices other than this unit cannot be read out.

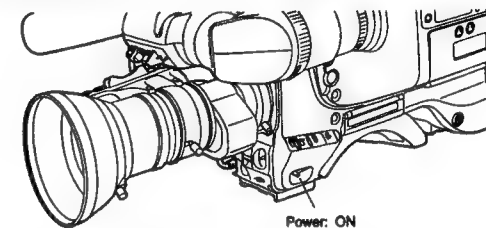
Cassettes

• See "Cassettes" (page 135) for a description of cassettes which can be used with the unit.

Inserting and Ejecting Cassettes

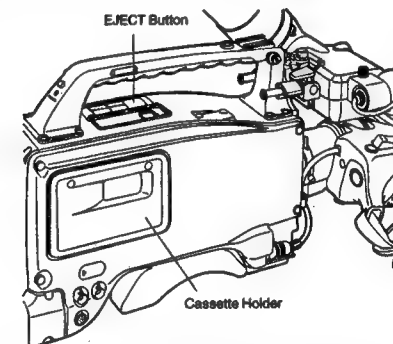
Inserting cassettes

- 1 Check that there are no cables, etc. around the cassette holder and the top panel and then set the POWER switch to ON.



If condensation has occurred inside the unit, the HUMID display lights. In these cases, wait until the display goes off before proceeding to step 2.

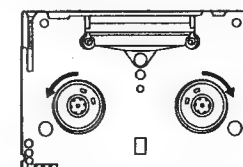
- 2 Press the EJECT button. The cassette holder opens.



- 3 Check that there is no slack in the tape, insert the cassette, and then firmly close the cassette holder.

Checking that there is no slack in the tape

Press the reel in with your finger and turn it lightly in the direction of the arrow. If the reel does not turn, there is no slack in the tape.



Cassettes

Ejecting cassettes

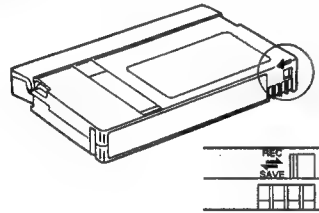
With the power turned on, press the EJECT button to open the cassette holder and eject the cassette. If a cassette is not to be inserted immediately after ejecting the cassette, close the cassette holder.

Ejecting cassettes when the battery has run out

Set the POWER switch to OFF to turn off the power, then turn on the power again and immediately hold down the EJECT button. If there is still power remaining in the battery, the cassette will be ejected. However, this operation should not be repeated.

Preventing Accidental Erasure

Set the tab on the cassette to the SAVE side to prevent the recorded contents of tapes from being accidentally erased.



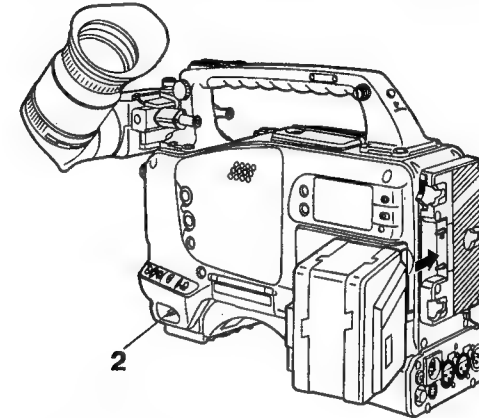
Recording

Basic Procedures

This section describes the basic operating procedures for shooting and recording. When starting to shoot actual images, inspect the unit beforehand to check that all systems are functioning normally.

• See the "Inspections Before Shooting" (page 129) for a description of inspection procedures.

Procedures from power supply preparations to inserting a cassette

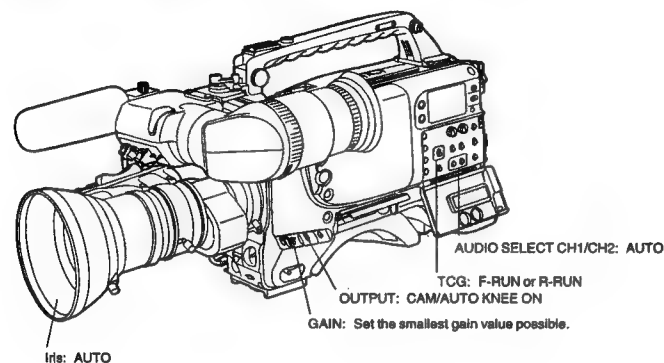


- 1 Insert a charged battery pack.
- 2 Set the POWER switch to ON and check that the HUMID display does not appear and that five or more bars of the remaining battery level display are lighted.
 - If the HUMID display appears, wait until the display goes off.
 - If five or more bars of the remaining battery level display are not lighted, replace the battery pack with a sufficiently charged battery pack.
- 3 Check that there are no cables, etc. around the cassette holder and top panel and then press the EJECT button to open the cassette holder.
- 4 Check the following items, and then insert a cassette and close the cassette holder.
 - The cassette is not set to write protect status.
 - There is no slack in the tape.

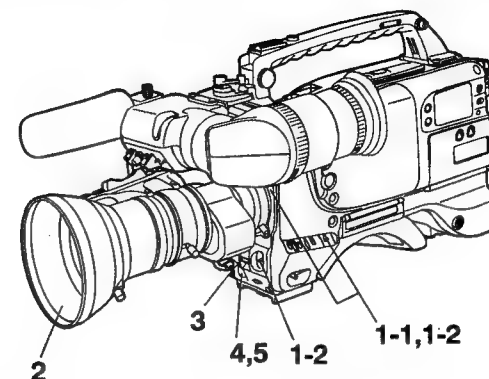
Recording

Procedures from adjusting the white balance and black balance to stopping recording

Turn on the power, insert a cassette, and then set the various switches as follows.



Shooting Images



- 1-1** Select the filter in accordance with the lighting conditions, and when the white balance has already been stored in the memory, set the WHITE BAL switch to "A" or "B".
When the white balance and black balance have not been stored in the memory and there is no time to adjust the white balance:
Set the WHITE BAL switch to PRST and set the FILTER knob to "1": this will achieve a 3200 K white balance. (If the knob is set to any other position, a 5600 K white balance is achieved.)
- 1-2** To adjust the white balance on site, select the filter which corresponds with the lighting conditions, set the WHITE BAL switch to "A" or "B", and adjust the white balance by following the steps below.
 - (1) Press the AUTO W/B BAL switch to the AWB side to adjust the white balance.
 - (2) Press the AUTO W/B BAL switch to the ABB side to adjust the black balance.
 - (3) Press the AUTO W/B BAL switch to the AWB side to adjust the white balance.
 For details on how to adjust the white balance, read through the section entitled "Adjusting the white balance/black balance" (page 66).
- 2** Aim the camera at the subject and adjust the focus and zoom.
- 3** When using the electronic shutter, set the shutter speed and operation mode.
• See "Setting the Electronic Shutter" (page 71) for a detailed description.
- 4** Press the VTR START button of the unit or the VTR button of the lens to start recording. The REC lamp inside the viewfinder lights during recording.
- 5** Press the VTR START button again to stop recording. The REC lamp inside the viewfinder goes off.

Tape operation buttons

The tape operation buttons (EJECT, REW, FF, PLAY, STOP) do not function during recording.

Recording

Successive Shooting

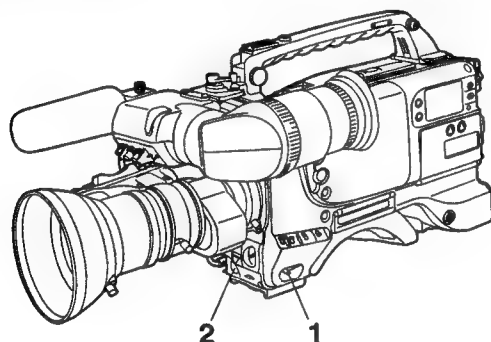
Successive shooting with an accuracy of within ± 1 frame can be performed simply by pressing the VTR START button of the unit or the VTR button of the lens while recording is paused.

While recording is paused

The unit automatically searches for the successive shooting point. However, the time until recording starts differs according to the setting of the VTR SAVE/STBY switch.

- If the VTR SAVE/STBY switch is set to SAVE, recording starts about 2 seconds after the VTR START button is pressed.
- If the VTR SAVE/STBY switch is set to STBY, recording starts immediately after the VTR START button is pressed.

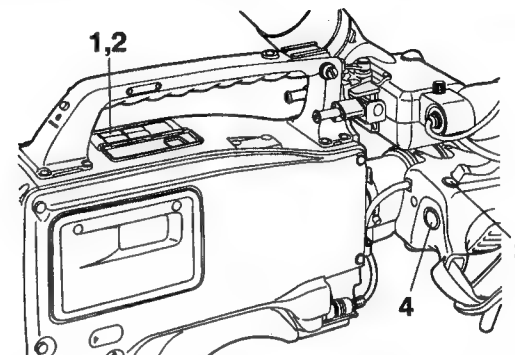
Successive shooting when the power is turned off while recording is paused



- 1 Turn the power back on.
- 2 Press the VTR START button of the unit or the VTR button of the lens to start recording.

Successive Shooting in Other Cases

If successive shooting is to be performed after the tape has been run, the cassette has been ejected, or when using a tape which has only been recorded part-way, follow the procedures outlined below.



Performing successive shooting after the tape has been run, the cassette has been ejected, or when using a tape which has only been recorded part-way

- 1 Press the PLAY button while watching the viewfinder screen and play back the tape.
- 2 At the place where continuity between frames is to be provided, press the PLAY (or STOP) button again to stop the tape.
- 3 Press the RET button on the lens. Preparations for frame-to-frame continuity are made about two seconds later.
- 4 Press the VTR START button of the unit or the VTR button of the lens to start recording.

Playback—Checking Recorded Contents

Pressing the PLAY button allows black-and-white playback images to be viewed on the viewfinder. Playback images can also be viewed in two other ways.

- **Rec review:** If the RET VIDEO switch is set to the INT side, black-and-white images of the last 2 seconds of the recorded contents can be seen on the viewfinder.
- **Colour playback:** Connecting a colour monitor to the unit's VIDEO OUT connector allows colour playback images to be viewed on the monitor.

The playback signal is output to the viewfinder even during rewind (REW) and fast forward (FF). Audio output selection and volume adjustment for the playback signal are performed by the MONITOR switches and knobs on page 13.

Rec Review

If recording is paused and the RET button on the lens is pressed, the tape is automatically re-wound and the playback images for the last two seconds appear on the viewfinder. This allows the recording status to be checked.

After playback, the unit returns to the recording start standby status. Holding down the RET button rewinds and plays back up to 10 seconds of the tape.

- See "Selecting Functions" (page 65) for a description of CAM RET. function settings.

<Note>

The rec review function cannot be used unless recording has been performed for more than 1 second.

Colour Playback

Connecting a colour monitor to the VIDEO OUT connector of the unit allows colour playback images to be viewed on the monitor.

Connection With an External VTR

The unit is equipped with an interface which enables recording to be performed by an external VTR.

- Mounting the AJ-YA700P 26-pin output adaptor (option) and connecting the 26-pin cable (option) to the unit allows recording to be performed by the VTR section (internal VTR) of the unit and an external VTR. The component video signal is output from the 26-pin interface.

Precautions When Connecting an External VTR

Set 26P CONTROL on the FUNCTION 3/5 page of the setting menu to BOTH or ON. (The setting is OFF when shipped from the factory.)

Power supply

Power is not supplied or received between the unit and the external VTR, so special power supplies should be provided for each unit. The BATT lamp and remaining battery level display function inside the viewfinder indicate the power supply status only for the internal VTR. The power supply status for the external VTR should be checked at the external VTR.

TALLY lamp and REC lamp operation

The unit's TALLY lamp and the REC lamp inside the viewfinder indicate the REC status of the unit when 26P CONTROL is set to BOTH. When 26P CONTROL is set to ON, these lamps indicate the REC status of the external VTR.

Warning tone

External VTR-related warning tones are not output from the unit's speaker or PHONES jack.

Note on connecting cables

The signals may not be connected properly with some cables.

The signal assignments for the 26-pin output adaptor AJ-YA700P (optional) are shown in the following table. Use this table as a reference for connection with an external VTR.

Pin No.	Signal	Pin No.	Signal
1	Composite video signal	8	Ps GND
2	Composite video GND	9	CAM MIC (H)
3	Y GND	10	CAM MIC (C)
4	Y signal	11	CAM MIC (GND)
5	Pr signal	12	VTR START/STOP
6	Pr GND	15	REC TALLY
7	Pb signal	8	GND

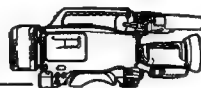
Recording Simultaneously with the Internal VTR and an External VTR

Connections

Mount the AJ-YA700P 26-pin output adaptor (option) to the unit, connect the external VTR with the 26-pin cable, and set the audio input level selector switch of the external VTR to "-60 dB". SW3101 and SW3102 on the CAM ENC Printed Circuit Board of the unit must be set to the 26P side. (See page 98.)

Audio input level selector switch: -60 dB

Portable VTR
(Set the audio input level
selector switch to -60 dB.)



To the 26-pin connector of the AJ-YA700P
(See the following page for mounting the 26-pin
output adaptor.)

Checking the Function Settings

Check that the settings of the functions which control the 26-pin interface are set to BOTH or ON at the FUNCTION 3/5 page of the setting menu. See "Selecting Functions" for a description of the various function settings.

Starting Recording

- 1 Operate the external VTR and set it to recording paused status.
- 2 Press the VTR START button of the unit or the VTR button of the lens. The internal and external VTRs start recording simultaneously. Pressing the button again sets both VTRs to the recording paused status.

If One VTR Comes to the End of Its Tape During Recording

Even if one VTR comes to the end of its tape and stops, the other VTR continues recording operation.

Returning the VTRs to simultaneous recording status

- If the internal VTR came to the end of its tape, replace the cassette and press the VTR START button of the unit or the VTR button of the lens. The external VTR continues recording operation during this time.
- If the external VTR came to the end of its tape, replace the cassette and operate the external VTR to restart recording. The internal VTR continues recording operation during this time.

<Note>

Care should be taken as the internal VTR will assume recording paused status if the VTR START button of the unit or the VTR button of the lens is pressed after replacing the external VTR's cassette.

Functions of the Unit's VTR SAVE/STBY Switch

Tape running mode

Pressing the unit's STOP, REW or FF buttons sets the internal VTR to stop, rewind or fast forward modes, respectively. However, the external VTR is set to recording paused status in all cases.

Viewing playback images on the viewfinder

Pressing the unit's PLAY button allows black-and-white playback images from the internal VTR tape to be viewed on the viewfinder. Playback images from the external VTR cannot be viewed.

Recording With an External VTR Instead of the Internal VTR

Using the 26-pin Output Adaptor

Connections

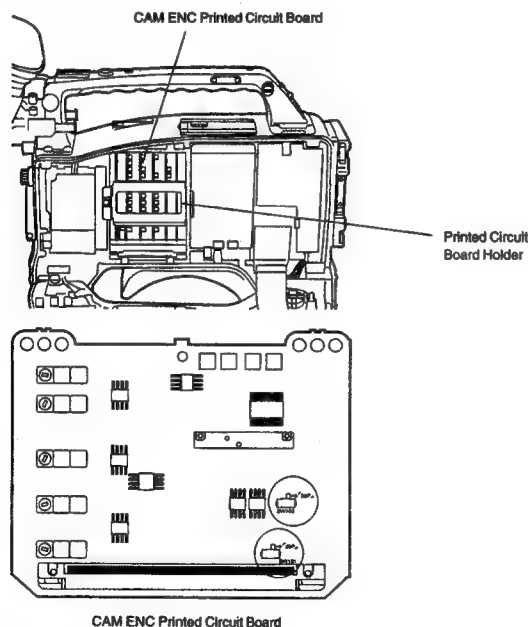
The method of connecting the external VTR is the same as that described in "Recording Simultaneously with the Internal VTR and an External VTR".

• See "Connections" on page 95.

Mounting the 26-pin output adaptor

• Consult your local dealer when mounting the adaptor.

- 1 Set the unit's internal switches.
 - 1 Remove the side panel on the display window side.
 - 2 Remove the Printed Circuit Board holder and remove the CAMERA ENC Printed Circuit Board.
 - 3 Set SW101 and SW102 to the 26P side.



- 2 Mount the 26-pin output adaptor.



Controlling the external VTR with the unit's switches

Setting the 26P CONTROL function as indicated below at the FUNCTION 3/5 page of the setting menu prevents the internal VTR from being operated and enables only the external VTR to be controlled by the VTR START button of the unit or the VTR button of the lens.

• 26P CONTROL: ON

• See "Selecting Functions" (page 65) for a description of FUNCTION 3/5 page operations.

Switching from the internal VTR to the external VTR

If the internal VTR experiences problems (tapes becoming tangled, condensation, etc.) during operation and becomes unable to operate, the VTR START button of the unit and the VTR button of the lens will not function. In these cases, setting the 26P CONTROL function as noted above at the FUNCTION 3/5 page allows the external VTR to be operated in place of the internal VTR using the VTR START button of the unit or the VTR button of the lens.

Starting recording

Operate the external VTR to set it to recording paused status and press the VTR START button of the unit or the VTR button of the lens. The external VTR starts recording. Pressing the button again sets the VTR to the recording paused status.

Output level of the 26-pin output adaptor

When the unit is shipped from the factory, the audio level is set to -60 dBu balanced. The audio level can be set to -20 dBu unbalanced. Consult your dealer for a detailed description.

RET Button

The images recorded on the VTR or return video signal which has been input to the VIDEO IN connector can be seen on the viewfinder screen when the RET (return video) button is pressed or while it is kept pressed in.

What is displayed on the viewfinder screen changes as indicated in the table below according to the RET VIDEO switch setting and VTR mode.

<Note>

When the REC SIGNAL item is set to VIDEO (when recording external input) at the MAIN FUNCTION page of the setting menu, the external input appears on the viewfinder screen. However, the camera image appears on the viewfinder screen while the RET button is held down.

■ Lens RET button functions

RET VIDEO switch setting	Internal VTR mode	Description of what appears on viewfinder screen
INT	Recording	Images shot by camera. RET button does not function.
	Recording paused	What has been recorded (2-second rec review) can be checked.
	Playing	Internal VTR's playback images. RET button does not function.
EXT	Playback paused	Search operation for successive shooting.
	Recording	Return video signal which has been supplied to VIDEO IN connector.
	Recording paused	Return video signal which has been supplied to VIDEO IN connector.
	Playing	Return video signal which has been supplied to VIDEO IN connector.
	Playback paused	Return video signal which has been supplied to VIDEO IN connector.

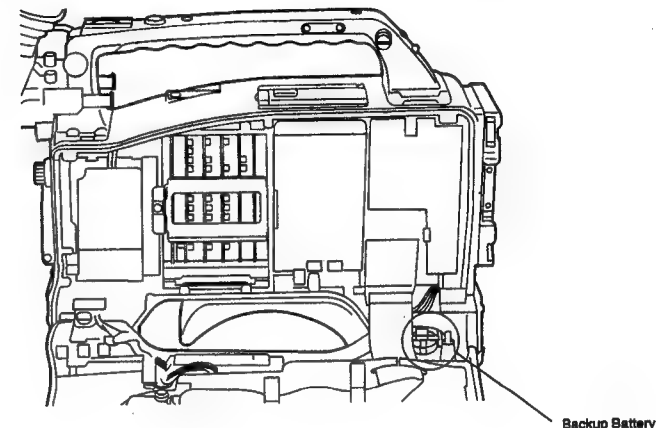
Replacing the Backup Battery

The unit is shipped from the factory with a backup battery already mounted. When the battery runs out, the TCG time code value indicates 00:00:00:00.

At this time, the time code value cannot be backed up.

In addition, the "BACK UP BATT EMPTY" display appears in the viewfinder for 3 seconds when the POWER switch is set to ON to indicate that the battery must be replaced.

Consult your dealer when replacing the battery.



Setting Menu Screens

MARKER Screen

This page sets the setting for the marker displays inside the viewfinder.

- MARKER -			
-CENTRE MARK : ON SAFETY ZONE : 1			
Item	Variable range	VF display	Remarks
CENTRE MARK	<u>ON</u> OFF	USER ENG	Centre mark display ON/OFF
SAFETY ZONE	OFF <u>1-6</u>	USER ENG	Safety zone switching/display OFF

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

VF DISPLAY Screen

This page sets the setting for the display information inside the viewfinder.

- VF DISPLAY -	
-DISP MODE :	3
EXTENDER :	ON
SHUTTER :	ON
TAPE :	ON
BATTERY :	ON
FILTER :	ON
WHITE :	ON
GAIN :	ON
LEVEL METER :	ON
IRIS :	S+IRIS
CAMERA ID :	ON

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Item	Variable range	VF display	Remarks																																			
DISP MODE	1- <u>3</u>	USER ENG	<table border="1"> <thead> <tr> <th rowspan="2">Change</th><th colspan="3">Display</th></tr> <tr> <th>1</th><th>2</th><th>3</th></tr> </thead> <tbody> <tr> <td>FILTER</td><td>x</td><td>x</td><td>○</td></tr> <tr> <td>GAIN</td><td>x</td><td>x</td><td>○</td></tr> <tr> <td>AWB</td><td>x</td><td>x</td><td>○</td></tr> <tr> <td>AUTO KNEE SW</td><td>x</td><td>○</td><td>○</td></tr> <tr> <td>SHUTTER</td><td>x</td><td>○</td><td>○</td></tr> <tr> <td>ABB STATUS</td><td>x</td><td>○</td><td>○</td></tr> <tr> <td>AWB STATUS</td><td>x</td><td>○</td><td>○</td></tr> </tbody> </table>	Change	Display			1	2	3	FILTER	x	x	○	GAIN	x	x	○	AWB	x	x	○	AUTO KNEE SW	x	○	○	SHUTTER	x	○	○	ABB STATUS	x	○	○	AWB STATUS	x	○	○
Change	Display																																					
	1	2	3																																			
FILTER	x	x	○																																			
GAIN	x	x	○																																			
AWB	x	x	○																																			
AUTO KNEE SW	x	○	○																																			
SHUTTER	x	○	○																																			
ABB STATUS	x	○	○																																			
AWB STATUS	x	○	○																																			
EXTENDER	<u>ON</u> OFF	USER ENG	Extender display ON/OFF																																			
SHUTTER	<u>ON</u> OFF	USER ENG	Shutter speed display ON/OFF																																			
TAPE	<u>ON</u> OFF	USER ENG	Remaining tape length display ON/OFF																																			
BATTERY	<u>ON</u> OFF	USER ENG	Battery voltage display ON/OFF																																			
FILTER	<u>ON</u> OFF	USER ENG	Filter No. display ON/OFF																																			
WHITE	<u>ON</u> OFF	USER ENG	AWB PRE/A/B display ON/OFF																																			
GAIN	<u>ON</u> OFF	USER ENG	Currently selected gain display ON/OFF																																			
LEVEL METER	<u>ON</u> OFF	USER ENG	Audio level meter display ON/OFF																																			
IRIS	IRIS <u>S+IRIS</u> S OFF	USER ENG	IRIS: Only the f-number is displayed. S+IRIS: Both the super iris ON status and f-number are displayed. S: Only the super iris ON status is displayed. OFF: Neither the super iris ON status nor f-number is displayed.																																			
CAMERA ID	<u>ON</u> OFF	USER ENG	Mix ON/OFF during colour bar recording																																			

The underlined setting in the Variable range column indicates the preset mode.

Setting Menu Screens

CAMERA ID Screen

This page performs the camera ID settings. Each time the UP button is pressed, the character display changes in the order of space, English letters (A to Z), numbers (0 to 9) and symbols [space, >, <, (,), {, }, ' ', ~, -, ~, /, !]. Pressing the DOWN button changes the character display in the reverse order.

```

- CAMERA ID -
  |
  |
ID: .....
    
```

Item	Variable range	VF display	Remarks
ID:	—	USER ENG	Camera ID input

SHUTTER SPEED Screen

This page performs the shutter speed settings. The ON/OFF status for each item is indicated by displaying an asterisk (*) or period (.) in front of the item on the screen.

```

- SHUTTER SPEED -
- - SYNCHRO SCAN
  * SUPER V
  * 1/60
  * 1/120
  * 1/250
  * 1/500
  * 1/1000
  * 1/2000
    
```

*: ON
 .: OFF

Item	Variable range	VF display	Remarks
SYNCHRO SCAN	<u>ON</u> OFF	ENG	Synchro scan shutter speed setting
SUPER V	ON <u>OFF</u>	ENG	SUPER V mode setting
1/60	<u>ON</u> OFF	ENG	Shutter speed 1/60 setting ON/OFF
1/120	<u>ON</u> OFF	ENG	Shutter speed 1/120 setting ON/OFF
1/250	<u>ON</u> OFF	ENG	Shutter speed 1/250 setting ON/OFF
1/500	<u>ON</u> OFF	ENG	Shutter speed 1/500 setting ON/OFF
1/1000	<u>ON</u> OFF	ENG	Shutter speed 1/1000 setting ON/OFF
1/2000	<u>ON</u> OFF	ENG	Shutter speed 1/2000 setting ON/OFF

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

SYNCHRO SCAN Screen

This page performs the synchro scan settings.

```

- SYNCHRO SCAN -
  |
  |
1/50.5
    
```

Item	Variable range	VF display	Remarks
SYNCHRO SCAN	<u>1/50.5</u> 1/252	USER ENG	Synchro shutter speed selection

! LED Screen

This page sets the ON/OFF setting for the ! LED display inside the viewfinder. The ON/OFF status for each item is indicated by displaying an asterisk (*) or period (.) in front of the item on the screen.

```

- ! LED -
- - GAIN (0dB)
  * GAIN (-3dB)
  * SHUTTER
  * WHITE PRESET
  * EXTENDER
  * FILTER
  * SUPER V
    
```

*: ON
 .: OFF

Item	Variable range	VF display	Remarks
GAIN (0 dB)	<u>ON</u> OFF	ENG	This selects whether or not the LED is lighted when the gain is any value other than 0 dB.
GAIN (-3 dB)	ON <u>OFF</u>	ENG	This selects whether or not the LED is lighted when the gain is any value other than -3 dB.
SHUTTER	<u>ON</u> OFF	ENG	This selects whether or not the LED is lighted when the shutter is ON.
WHITE PRESET	ON <u>OFF</u>	ENG	This selects whether or not the LED is lighted when the AWC CH is PRESET.
EXTENDER	<u>ON</u> OFF	ENG	This selects whether or not the LED is lighted when the lens is in EXTENDER mode.
FILTER	ON <u>OFF</u>	ENG	This selects whether or not the LED is lighted when the filter is any value other than 3200K.
SUPER V	ON <u>OFF</u>	ENG	This selects whether or not the LED is lighted when SUPER V is ON.

<Note>

The ! LED lights when both GAIN (0 dB) and GAIN (-3 dB) are ON unless the gain is set to -3 dB or 0 dB.

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

SET UP CARD Screen

This page sets the loading, saving and formatting operations for setup cards. Align the "--" with the desired item and press the UP or DOWN button to perform the corresponding processing.

- SET UP CARD -			
-READ (-CAM) WRITE (-CARD) CARD CONFIG. ID READ/WRITE :ON FUNCTION1~2R/W:ON L/M/H SET R/W :ON LEVEL 1~6 R/W :ON			
Item	Variable range	VF display	Remarks
READ (→CAM)	---	USER ENG	Setup card data is written to the unit.
WRITE (→CARD)	---	USER ENG	Camera data is written to the setup card.
CARD CONFIG.	---	USER ENG	The setup card is formatted.
ID READ/WRITE	ON OFF	USER ENG	CAMERA ID READ/WRITE is switched ON or OFF when data is read from or written on the set-up card. ON: Read/write is enabled. OFF: Read/write is disabled.
FUNC1~2 R/W	ON OFF	USER ENG	READ/WRITE for FUNCTION1 and FUNCTION2 is switched ON or OFF when data is read from or written on the set-up card. ON: Read/write is enabled. OFF: Read/write is disabled.
L/M/H SET R/W	ON OFF	USER ENG	READ/WRITE for LOW SETTING, MID SETTING and HIGH SETTING is switched ON or OFF when data is read from or written on the set-up card. ON: Read/write is enabled. OFF: Read/write is disabled.
LEVEL1~6 R/W	ON OFF	USER ENG	READ/WRITE for LEVEL 1/6, 2/6, 3/6, 4/6, 5/6 and 6/6 is switched ON or OFF when data is read from or written on the set-up card. ON: Read/write is enabled. OFF: Read/write is disabled.

*For example, so as not to change the CAMERA ID when reading from, or writing to the SET UP CARD, the ID READ/WRITE should be selected to OFF.

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

MAIN FUNCTION Screen

This page performs the adjustment function settings.

- MAIN FUNCTION -			
-PHANTOM FRONT:ON PHANTOM CH1 :OFF PHANTOM CH2 :OFF			
Item	Variable range	VF display	Remarks
PHANTOM FRONT	ON OFF	ENG	Phantom microphone (front) usage selection ON: Phantom microphone (+48 V) used. OFF: Normal microphone used.
PHANTOM CH1	ON OFF	ENG	Phantom microphone (CH1) usage selection ON: Phantom microphone (+48 V) used. OFF: Normal microphone used.
PHANTOM CH2	ON OFF	ENG	Phantom microphone (CH2) usage selection ON: Phantom microphone (+48 V) used. OFF: Normal microphone used.

BATT/TAPE ALARM Screen

The battery end and tape end audio warnings during shooting can be switched off if they become undesirable.

- BATT/TAPE ALARM -			
-BATT NEAR END :ON BATT END :ON TAPE NEAR END :ON TAPE END :ON			
Item	Variable range	VF display	Remarks
BATT NEAR END	ON OFF	ENG	Battery near end audio ON/OFF
BATT END	ON OFF	ENG	Battery end audio warning ON/OFF
TAPE NEAR END	ON OFF	ENG	Tape near end audio warning ON/OFF
TAPE END	ON OFF	ENG	Tape end audio warning ON/OFF

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

FUNCTION 1/5 Screen

This page performs the adjustment function 1 settings. The ON/OFF status for each item is indicated by displaying an asterisk (*) or period (.) in front of the item on the screen.

- FUNCTION 1/5 -	
→DETAIL	
•2D LPF	
•SKIN TONE DTL	
•MATRIX	
•GAMMA	
•TEST SAW	
•FLARE	

•: ON
.: OFF

Item	Variable range	VF display	Remarks
DETAIL	ON OFF	ENG	Detail (H, V) ON/OFF switching
2D LPF	ON OFF	ENG	ON/OFF switching for 2-dimensional LPF (Low Pass Filter) which reduces colour smear
SKIN TONE DTL	ON OFF	ENG	Skin tone detail ON/OFF switching
MATRIX	ON OFF	ENG	Colour adjustment ON/OFF switching
GAMMA	ON OFF	ENG	Gamma circuit ON/OFF switching
TEST SAW	ON OFF	ENG	Test signal ON/OFF switching
FLARE	ON OFF	ENG	Flare compensation ON/OFF switching

FUNCTION 2/5 Screen

This page performs the adjustment function 2 settings.

- FUNCTION 2/5 -	
→SUPER V	FRM1
FILTER INH	OFF
SHOCKLESS AWB	NORMAL
S.IRIS SW	S.IRIS
S.SCAN SEL	ON

Item	Variable range	VF display	Remarks
SUPER V	FRM1 FRM2	ENG	Super V mode selection FRM1: Normal mode FRM2: Lag reduction mode
FILTER INH	ON OFF	ENG	Switch that determines whether AWB memory (Ach, Bch) data is stored for each filter. ON: Ach and Bch memory only (2 memory units), regardless of the filter. OFF: Data is stored for each filter. (4×2=8 memory units)
SHOCKLESS AWB	OFF NORMAL SLOW FAST	ENG	Shockless AWB ON (NORMAL/SLOW/FAST)/OFF switching
S.IRIS SW	S.IRIS 30 dB OFF	ENG	Super iris (S.IRIS)/30 dB/OFF switching
S.SCAN SEL	ON OFF	ENG	Synchro scan ON/OFF switching ON: S.SCAN speed can be varied by the SUPER IRIS/MODE CHECK switch. OFF: Normal mode

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

FUNCTION 3/5 Screen

This page performs the adjustment function 3 settings.

- FUNCTION 3/5 -	
→HUMID OPE	:OFF
26P CONTROL	:OFF
REC START	:NORMAL
UB MODE	:USER
PAUSE TIMER	:30
BATTERY SEL	:NiCd-12
TCG VF DISP	:OFF

Item	Variable range	VF display	Remarks
HUMID OPE	ON OFF	ENG	VTR operation selection when condensation occurs. ON: Operation continues normally. OFF: All operations prohibited except for POWER switch and EJECT button.
26P CONTROL	OFF BOTH ON	ENG	26P remote control selection OFF: Unit only (26P control does not function.) BOTH: Unit and 26P remote control (TALLY LED indicates unit REC status.) ON: 26P remote control only (TALLY LED indicates 26P VTR REC status.)
REC START	ALL NORMAL	ENG	REC acceptance selection for VTR START/STOP ALL: REC accepted regardless of VTR mode. NORMAL: REC accepted only during STOP (POWER SAVE) mode and REC PAUSE mode.
UB MODE	USER REAL EXT	ENG	LTC UB usage method selection USER: User setting (fixed value) REAL: Real-time operation according to the TIME DATE time EXT: When there is external TC input, the UBG value is slave locked. (When there is no external input, the user setting is used.)
PAUSE TIMER	10 20 30	ENG	Selection for the recording/pause hold time. 10: 10 minutes 20: 20 minutes 30: 30 minutes
BATTERY SEL	NiCd-12 NiCd-13 NiCd-14 DIGITAL	ENG	Battery type selection* NiCd-12: 12 V Nicad battery NiCd-13: 13 V Nicad battery NiCd-14: 14 V Nicad battery DIGITAL: Digital battery
TCG VF DISP	ON OFF	ENG	Viewfinder time code display ON/OFF ON: Time code is displayed. OFF: Time code is not displayed.

*Even if the BATTERY SEL is selected to NiCd-12, 13 or 14, the camera automatically senses whether or not an Anton Bauer's Intelligent Battery is fitted. In the case of an intelligent battery, a numerical indication (percentage) of power available is displayed in the viewfinder. If the camera is usually used with an intelligent battery, BATTERY SEL should be set to DIGITAL.

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

FUNCTION 4/5 Screen

This page performs the adjustment function 4 settings.

```

- FUNCTION 4/5 -
-FRONT MIC      : -40dB
REAR MIC CH1    : -60dB
REAR MIC CH2    : -60dB
LINE CH1/CH2    : 0dB
REAR AUDIO      : STEREO
MIC LOWCUT CH1  : OFF
MIC LOWCUT CH2  : OFF
EMPHASIS        : OFF
CUE AUDIO       : CH1
    
```

Item	Variable range	VF display	Remarks
FRONT MIC	-40/ -50/ -60 dB	ENG	Camera microphone input level selection
REAR MIC CH1	-40/ -50/ -60 dB	ENG	Rear jack AUDIO CH1 input microphone level selection
REAR MIC CH2	-40/ -50/ -60 dB	ENG	Rear jack AUDIO CH2 input microphone level selection
LINE CH1/CH2	+4/0/ -6 dB	ENG	Rear jack AUDIO CH1/CH2 input line input level selection
REAR AUDIO	STEREO MONO	ENG	Audio CH1/CH2 rear jack input selection STEREO: Selects stereo input (CH1 input is recorded in CH1 and CH2 input is recorded in CH2.) MONO: Selects monaural input (The signals of CH1 and CH2 are mixed and recorded in CH1 and CH2 respectively.)
MIC LOWCUT CH1	ON OFF	ENG	CH1 microphone bypass filter ON/OFF switching
MIC LOWCUT CH2	ON OFF	ENG	CH2 microphone bypass filter ON/OFF switching
EMPHASIS	ON OFF	ENG	Emphasis ON/OFF switching
CUE AUDIO	CH1 CH2 MIX	ENG	CUE AUDIO recording setting CH1: Records CH1 AUDIO CH2: Records CH2 AUDIO MIX: Records CH1 and CH2 mixed AUDIO.

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

FUNCTION 5/5 Screen

This page performs the adjustment function 5 settings.

```

- FUNCTION 5/5 -
-AUDIO OUT      : CH1
LIMITER         : OFF
TEST TONE       : ON
    
```

Item	Variable range	VF display	Remarks
AUDIO OUT	CH1/ CH2/ MIX	ENG	AUDIO OUT selection CH1: CH1 output to AUDIO OUT CH2: CH2 output to AUDIO OUT MIX: CH1 and CH2 mixed and output to AUDIO OUT
LIMITER	ON OFF	ENG	Audio limiter ON/OFF switching ON: Limiter ON OFF: Limiter OFF
TEST TONE	ON OFF	ENG	Audio test tone ON/OFF switching during colour bar output

TIME DATE Screen

This page performs the date and time settings. After the date and time have been changed, pressing the UP or DOWN buttons executes the settings.

```

- TIME/DATE -
- YEAR : 95
MONTH : 01
DAY : 01
HOUR : 00
MINUTE : 00
=TIME/DATE SET
    
```

Item	Variable range	VF display	Remarks
YEAR	<u>95</u> to 10	ENG	Year setting
MONTH	<u>1</u> to 12	ENG	Month setting
DAY	<u>1</u> to 31	ENG	Day setting
HOUR	<u>0</u> to 23	ENG	Hour setting
MINUTE	<u>0</u> to 59	ENG	Minute setting
TIME/DATE SET	—	ENG	Date/time confirmation

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

LOW SETTING Screen

This page sets the low level.

- LOW SETTING -
 -MASTER GAIN : 0dB
 H.DTL LEVEL : 13
 V.DTL LEVEL : 10
 DTL CORING : 03
 H.DTL FREQ. : 03
 DARK DTL : 00
 LEVEL DEPEND : 01
 MASTER GAMMA : 0.47
 BLACK STRETCH : OFF
 MATRIX TABLE : A

Item	Variable range	VF display	Remarks
MASTER GAIN	-3 dB : 0 dB : 30 dB	ENG	Gains of -3, 0, 3, 6, 9, 12, 15, 18, 21, 24 and 30 dB (S. H. GAIN) can be set.
H.DTL LEVEL	0 : 13 : 31	ENG	H.DTL (detail) level setting
V.DTL LEVEL	0 : 10 : 31	ENG	V.DTL (detail) level setting
DTL CORING	0 : 3 : 15	ENG	DTL coring setting
H.DTL FREQ.	1 : 3 : 5	ENG	H.DTL frequency selection
DARK DTL	0 : 5	ENG	Dark detail setting
LEVEL DEPEND.	0 : 1 : 5	ENG	LEVEL DEPEND. setting
MASTER GAMMA	0.35 : 0.47 : 0.75	ENG	Master gamma setting 0.01 steps
BLACK STRETCH	ON OFF	ENG	ON/OFF switching for mode which compensates low-illumination black-out
MATRIX TABLE	A B	ENG	Colour compensation table selection

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

MID SETTING Screen

This page sets the middle level.

- MID SETTING -
 -MASTER GAIN : 9dB
 H.DTL LEVEL : 13
 V.DTL LEVEL : 10
 DTL CORING : 05
 H.DTL FREQ. : 03
 DARK DTL : 00
 LEVEL DEPEND : 03
 MASTER GAMMA : 0.47
 BLACK STRETCH : OFF
 MATRIX TABLE : A

Item	Variable range	VF display	Remarks
MASTER GAIN	-3 dB : 9 dB : 30 dB	ENG	Gains of -3, 0, 3, 6, 9, 12, 15, 18, 21, 24 and 30 dB (S. H. GAIN) can be set.
H.DTL LEVEL	0 : 13 : 31	ENG	H.DTL (detail) level setting
V.DTL LEVEL	0 : 10 : 31	ENG	V.DTL (detail) level setting
DTL CORING	0 : 5 : 15	ENG	DTL coring setting
H.DTL FREQ.	1 : 3 : 5	ENG	H.DTL frequency selection
DARK DTL	0 : 5	ENG	Dark detail setting
LEVEL DEPEND.	0 : 3 : 5	ENG	LEVEL DEPEND. setting
MASTER GAMMA	0.35 : 0.47 : 0.75	ENG	Master gamma setting 0.01 steps
BLACK STRETCH	ON OFF	ENG	ON/OFF switching for mode which compensates low-illumination black-out
MATRIX TABLE	A B	ENG	Colour compensation table selection

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

HIGH SETTING Screen

This page sets the high level.

- HIGH SETTING -	
MASTER GAIN	:18dB
H.DTL LEVEL	:10
V.DTL LEVEL	:08
DTL CORING	:08
H.DTL FREQ.	:03
DARK DTL	:00
LEVEL DEPEND.	:06
MASTER GAMMA	:0.55
BLACK STRETCH	:OFF
MATRIX TABLE	:B

Item	Variable range	VF display	Remarks
MASTER GAIN	-3 dB : 18 dB : 30 dB	ENG	Gains of -3, 0, 3, 6, 9, 12, 15, 18, 21, 24 and 30 dB (S. H. GAIN) can be set.
H.DTL LEVEL	0 : 10 : 31	ENG	H.DTL (detail) level setting
V.DTL LEVEL	0 : 8 : 31	ENG	V.DTL (detail) level setting
DTL CORING	0 : 8 : 15	ENG	DTL coring setting
H.DTL FREQ.	1 : 3 : 5	ENG	H.DTL frequency selection
DARK DTL	0 : 5	ENG	Dark detail setting
LEVEL DEPEND.	0 : 5	ENG	LEVEL DEPEND. setting
MASTER GAMMA	0.35 : 0.55 : 0.75	ENG	Master gamma setting 0.01 steps
BLACK STRETCH	ON OFF	ENG	ON/OFF switching for mode which compensates low-illumination black-out
MATRIX TABLE	A B	ENG	Colour compensation table selection

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

LEVEL 1/6 Screen

This page performs the camera setup level 1 settings.

- LEVEL 1/6 -	
-C DTL COMPE.	:OFF
CHROMA DTL	:00
C DTL CORING	:00
KNEE APERTURE	:ON
SLIM DTL	:OFF
SUPER COLOUR	:ON
CORNER DTL	:OFF

Item	Variable range	VF display	Remarks
C DTL COMPE.	ON OFF	ENG	Chroma DTL ON/OFF switching
CHROMA DTL	0 : 15	ENG	Chroma DTL setting
C DTL CORING	0 : 15	ENG	Chroma DTL CORING setting
KNEE APERTURE	ON OFF	ENG	Knee aperture ON/OFF switching
SLIM DTL	ON OFF	ENG	ON/OFF switching for mode which narrows detail
SUPER COLOUR	ON OFF	ENG	ON/OFF switching for colour dynamic range expansion
CORNER DTL	ON OFF	ENG	ON/OFF switching for mode which increases edge resolution

LEVEL 2/6 Screen

This page performs the camera setup level 2 settings.

- LEVEL 2/6 -	
-SKIN TONE HUE	:103
SKIN TONE LEVEL	:25
SKIN TONE WIDTH	:15
SKIN TONE CORING	:15
SKIN TONE ZEBRA	:OFF

Item	Variable range	VF display	Remarks
SKIN TONE HUE	103 : 143	ENG	Skin tone hue setting
SKIN TONE LEVEL	1 : 25 : 50	ENG	Skin tone level setting
SKIN TONE WIDTH	1 : 15 : 30	ENG	Skin tone width setting
SKIN TONE CORING	0 : 15	ENG	Skin tone coring setting
SKIN TONE ZEBRA	ON OFF	ENG	Skin tone zebra ON/OFF switching

<Note>

Only numbers are displayed while the variable range of any item except SKIN TONE ZEBRA ON/OFF is being changed.

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

LEVEL 3/6 Screen

This page performs the camera setup level 3 settings.

- LEVEL 3/6 -
 -M. PED :+006
 MANUAL KNEE :ON
 KNEE POINT :197
 KNEE SLOPE :24
 WHITE CLIP :ON
 WHITE CLIP LEVEL:244

Item	Variable range	VF display	Remarks
M.PED	-128 : : <u>+006</u> : +127	ENG	M.PED (Master pedestal level) setting
MANUAL KNEE	ON OFF	ENG	Mode setting when AUTO KNEE switch is set to OFF
KNEE POINT	197 : : 219	ENG	Manual knee point position setting
KNEE SLOPE	0 : : <u>24</u> : 25	ENG	Manual knee inclination setting
WHITE CLIP	ON OFF		White clip ON/OFF switching
WHITE CLIP LEVEL	214 : : <u>244</u> : 254		White clip level setting

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

LEVEL 4/6 Screen

This page performs the camera setup level 4 settings.

- LEVEL 4/6 -
 -R FLARE :---
 G FLARE :---
 B FLARE :---
 R GAMMA :+00
 B GAMMA :+00

Item	Variable range	VF display	Remarks
R FLARE	00 : : 100	ENG	Rch flare setting The preset value differs according to the camera.
G FLARE	00 : : 100	ENG	Gch flare setting The preset value differs according to the camera.
B FLARE	00 : : 100	ENG	Bch flare setting The preset value differs according to the camera.
R GAMMA	-15 : : <u>+00</u> : +15	ENG	Rch gamma compensation value for the master gamma.
B GAMMA	-15 : : <u>+00</u> : +15	ENG	Bch gamma compensation value for the master gamma.

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

LEVEL 5/6 Screen

This page performs the recording level 5 settings.

- LEVEL 5/6 -			
-MATRIX TABLE : A MATRIX R-G : +15 MATRIX R-B : +07 MATRIX G-R : +02 MATRIX G-B : +10 MATRIX B-R : +15 MATRIX B-G : +02			
Item	Variable range		VF display
	A	B	
MATRIX TABLE	<u>A</u>		ENG
MATRIX R-G	-31 : : : <u>+15</u> : +31	-31 : : : <u>+5</u> : +31	ENG
MATRIX R-B	-31 : : : <u>+7</u> : +31	-31 : : : <u>-3</u> : +31	ENG
MATRIX G-R	-31 : : : <u>+2</u> : +31	-31 : : : <u>-8</u> : +31	ENG
MATRIX G-B	-31 : : : <u>+10</u> : +31	-31 : : : <u>+00</u> : +31	ENG
MATRIX B-R	-31 : : : <u>+15</u> : +31	-31 : : : <u>+5</u> : +31	ENG
MATRIX B-G	-31 : : : <u>+2</u> : +31	-31 : : : <u>-8</u> : +31	ENG

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

LEVEL 6/6 Screen

This page performs the camera setup level 6 settings.

- LEVEL 6/6 -			
-H PHASE COARSE : 07 H PHASE FINE : 128 SC PHASE COARSE : 0 SC PHASE FINE : 128 A. IRIS LEVEL : 63 A. IRIS PEAK/AVE : 075 A. IRIS MODE : NORM1 S. IRIS LEVEL : 072			
Item	Variable range	VF display	Remarks
H PHASE COARSE	0 : : <u>Z</u> : 15	ENG	H phase rough adjustment during GENLOCK mode.
H PHASE FINE	0 : <u>128</u> : 255	ENG	H phase fine adjustment during GENLOCK mode.
SC PHASE COARSE	0 : <u>3</u>	ENG	SC phase rough adjustment during GENLOCK mode.
SC PHASE FINE	0 : <u>128</u> : 255	ENG	SC phase fine adjustment during GENLOCK mode.
A. IRIS LEVEL	0 : <u>63</u> : 100	ENG	Auto iris target value setting
A. IRIS PEAK/AVE	0 : <u>75</u> : 100	ENG	Auto iris peak: average value ratio setting
A. IRIS MODE	NORM1 NORM2 CENTR	ENG	Auto iris mode selection NORM1: Light metering over entire screen (except for edges). NORM2: Light metering over entire screen (except for top). CENTR: Light metering with priority given to centre area.
S. IRIS LEVEL	0 : <u>72</u> : 100	ENG	Super iris target value setting (Backlight compensation mode)

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

VF OPERATION Screen

This page performs the viewfinder display settings.

Item	Variable range	VF display	Remarks
VF OUT	Y NAM R G B	ENG	VF OUT selection
VF DTL	0 : 2 : 4	ENG	VF DTL selection
ZEBRA1 DETECT	50 : 70 : 110	ENG	ZEBRA1 DETECT level (% value) setting
ZEBRA2 DETECT	50 : 85 : 110	ENG	ZEBRA2 DETECT level (% value) setting
ZEBRA2	ON OFF <u>SPOT</u>	ENG	ZEBRA2 ON/OFF switching and SPOT selection *When ZEBRA2 is set to SPOT, set the ZEBRA2 DETECT value higher than the ZEBRA1 DETECT value. If the ZEBRA2 DETECT value is less than the ZEBRA1 DETECT value, the ZEBRA pattern will not be displayed.

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

LENS ADJ Screen

This page performs the lens adjustments. The ON/OFF status for each item is indicated by displaying an asterisk (*) or period (.) in front of the item on the screen.

- LENS ADJ -
-* F2.8 ADJ
* F16 ADJ

.: ON
.: OFF

Item	Variable range	VF display	Remarks
F2.8 ADJ	—	ENG	Voltage is output only when selected by the cursor (arrow).
F16 ADJ	—	ENG	Voltage is output only when selected by the cursor (arrow).

<Note>

When using a lens which allows the lens iris open or close end to be adjusted, set either "F2.8 ADJ" or "F16 ADJ" to ON and repeatedly adjust the lens iris until it is "F2.8" or "F16", respectively. (Some types of lenses do not have this adjustment knob. Such lenses do not require this adjustment, except for lenses intended for special applications.)

MENU SELECT 1/3 Screen

This page performs the menu page display ON/OFF settings. The ON/OFF status for each item is indicated by displaying an asterisk (*) or period (.) in front of the item on the screen.

- MENU SELECT 1/3 -
-* MARKER
* VF DISPLAY
* CAMERA ID
* SHUTTER SPEED
* SYNCHRO SCAN
* I LED
* SET UP CARD
* MAIN FUNCTION
* BATT/TAPE ALARM

.: ON
.: OFF

Item	Variable range	VF display	Remarks
MARKER	ON OFF	ENG	MARKER item user menu display ON/OFF
VF DISPLAY	ON OFF	ENG	VF DISPLAY item user menu display ON/OFF
CAMERA ID	ON OFF	ENG	CAMERA ID item user menu display ON/OFF
SHUTTER SPEED	ON OFF	ENG	SHUTTER SPEED item user menu display ON/OFF
SYNCHRO SCAN	ON OFF	ENG	SYNCHRO SCAN item user menu display ON/OFF
I LED	ON OFF	ENG	I LED item user menu display ON/OFF
SET UP CARD	ON OFF	ENG	SET UP CARD item user menu display ON/OFF
MAIN FUNCTION	ON OFF	ENG	MAIN FUNCTION item user menu display ON/OFF
BATT/TAPE ALARM	ON OFF	ENG	BATT/TAPE ALARM item user menu display ON/OFF ON: This switches the display ON. OFF: This switches the display OFF.

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

MENU SELECT 2/3 Screen

This page performs the menu page display ON/OFF settings. The ON/OFF status for each item is indicated by displaying an asterisk (*) or period (.) in front of the item on the screen.

- MENU SELECT 2/3 -			
* FUNCTION 1/5 * FUNCTION 2/5 * FUNCTION 3/5 * FUNCTION 4/5 * FUNCTION 5/5 * TIME/DATE * LOW SETTING * MID SETTING * HIGH SETTING			
*: ON .: OFF			
Item	Variable range	VF display	Remarks
FUNCTION 1/5	ON <u>OFF</u>	ENG	FUNCTION 1/5 item user menu display ON/OFF
FUNCTION 2/5	ON <u>OFF</u>	ENG	FUNCTION 2/5 item user menu display ON/OFF
FUNCTION 3/5	ON <u>OFF</u>	ENG	FUNCTION 3/5 item user menu display ON/OFF
FUNCTION 4/5	ON <u>OFF</u>	ENG	FUNCTION 4/5 item user menu display ON/OFF
FUNCTION 5/5	ON <u>OFF</u>	ENG	FUNCTION 5/5 item user menu display ON/OFF
TIME/DATE	ON <u>OFF</u>	ENG	TIME/DATE item user menu display ON/OFF
LOW SETTING	ON <u>OFF</u>	ENG	LOW SETTING item user menu display ON/OFF
MID SETTING	ON <u>OFF</u>	ENG	MID SETTING item user menu display ON/OFF
HIGH SETTING	ON <u>OFF</u>	ENG	HIGH SETTING item user menu display ON/OFF

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

MENU SELECT 3/3 Screen

This page performs the menu page display ON/OFF settings. The ON/OFF status for each item is indicated by displaying an asterisk (*) or period (.) in front of the item on the screen.

- MENU SELECT 3/3 -			
* LEVEL 1/6 * LEVEL 2/6 * LEVEL 3/6 * LEVEL 4/6 * LEVEL 5/6 * LEVEL 6/6 * VF OPERATION * LENS ADJ			
*: ON .: OFF			
Item	Variable range	VF display	Remarks
LEVEL 1/6	ON <u>OFF</u>	ENG	LEVEL 1/6 item user menu display ON/OFF
LEVEL 2/6	ON <u>OFF</u>	ENG	LEVEL 2/6 item user menu display ON/OFF
LEVEL 3/6	ON <u>OFF</u>	ENG	LEVEL 3/6 item user menu display ON/OFF
LEVEL 4/6	ON <u>OFF</u>	ENG	LEVEL 4/6 item user menu display ON/OFF
LEVEL 5/6	ON <u>OFF</u>	ENG	LEVEL 5/6 item user menu display ON/OFF
LEVEL 6/6	ON <u>OFF</u>	ENG	LEVEL 6/6 item user menu display ON/OFF
VF OPERATION	ON <u>OFF</u>	ENG	VF OPERATION item user menu display ON/OFF
LENS ADJ	ON <u>OFF</u>	ENG	LENS ADJ item user menu display ON/OFF

The underlined setting in the Variable range column indicates the preset mode.

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Setting Menu Screens

AUTO SHADING Screen

This page performs the auto shading settings. Align the arrow with the desired BLACK or WHITE item and press the UP or DOWN button to execute the setting.

```

- AUTO SHADING -
-BLACK
WHITE (V. SAW)
BLACK COMPE : ON
WHITE COMPE : ON
    
```

Item	Variable range	VF display	Remarks
BLACK	—	ENG	Auto black shading (digital) activated
WHITE (V. SAW)	—	ENG	Auto white shading (V. SAW) activated
BLACK COMPE	ON OFF	ENG	Black compensation ON/OFF
WHITE COMPE	ON OFF	ENG	White compensation ON/OFF

The underlined setting in the Variable range column indicates the preset mode.

DATA RESET Screen

This page resets the menu display item settings. Aligning the cursor (arrow) with the item and pressing the UP or DOWN button resets the settings.

```

- DATA RESET -
-MENU INIT.
    
```

Item	Variable range	VF display	Remarks
DATA RESET	—	ENG	Sets the setting menu to the status when shipped from the factory.

<Note>

The flare compensation value (LEVEL 4/6) and shading compensation value (AUTO SHADING) do not return to the default settings.

DIAGNOSTIC Screen

This page displays the unit's operating conditions and software version.

```

- DIAGNOSTIC -
OPERATION : 00000 x10h
DRUM RUNNING: 00000 x10h
THREADING : 00000 x10
VTR SYSCON : Ver<1.0>
CAM SYSCON : Ver<1.0>
    
```

Item	Variable range	VF display	Remarks
OPERATION	—	ENG	Operating time with the power ON
DRUM RUNNING	—	ENG	Drum rotating time
THREADING	—	—	Loading times
VTR SYSCON	—	ENG	Software version display
CAM SYSCON	—	ENG	Software version display

Menu screen display methods

USER menu: Setting the MENU switch to SET displays the USER menu.

ENG menu: Holding down the SHIFT/ITEM and UP buttons simultaneously and setting the MENU switch to SET displays the ENG menu.

Warning System

If trouble is detected immediately after the power is turned on or during operation, the display window (LCD), WARNING lamp, lamps inside the viewfinder, and warning tones from the speaker and earphone inform the operator of trouble.

Item	Display window (LCD)				Lamps		Warning tone	Warning contents	VTR (section) operation	Countermeasures
	Warning display	Warning display status	Remaining battery level display	Remaining tape length display	WARN-ING lamp	REC lamp				
RF	RF	Lighted *1)			Flashes 4 times per second	Flashes 4 times per second	Emitted 4 times per second *1)	Video head clogging, recording system trouble	Head clogging is detected and a warning tone emitted. Images may not be recorded properly.	Clean the heads. If images still cannot be recorded properly after the heads are cleaned, consult your dealer.
SERVO	SERVO	Lighted			Flashes 4 times per second	Flashes 4 times per second	Emitted 4 times per second	The servo is out of order.	Recording continues, but images may not be recorded properly.	Turn off the power and consult your dealer. (Lamps may flash briefly and then go off when tape running starts, but this does not indicate trouble.)
HUMID	HUMID	Lighted			Lighted	Flashes 4 times per second	Emitted 4 times per second *1) Continuous tone *2)	Condensation	Recording continues, but stops if tape sticking occurs. Playback, fast forward and rewind operation stops.	If tape running stops and the HUMID display does not go off even when the power is turned off and then on again, wait until the display goes off.
SLACK	SLACK	Flashes			Flashes 4 times per second	Flashes 4 times per second	Continuous tone	Tape wind-up trouble	An error code appears in the time code display position of the display window (LCD) and the VTR stops.	Check the error code in the display window (see page 127) and consult your dealer.

*1) During recording

*2) During playback, fast forward or rewind

<Note>

If a cleaning tape is not available to deal with video head clogging, etc., first establish the STOP mode and then press the STOP button again while the RESET button on the side panel is kept depressed. While these buttons are held down, the cleaning roller will clean the heads for a maximum of 10 seconds.

Warning System

Item	Display window (LCD)				Lamps		Warning tone	Warning contents	VTR (section) operation	Countermeasures
	Warning display	Warning display status	Remaining battery level display	Remaining tape length display	WARNING lamp	REC lamp				
TAPE END	E TAPE F	Flashes *1)		1 of the 7 bars displayed; 5-0 display inside the viewfinder flashes	Flashes 1 time per second*1)	Flashes 1 time per second	Emitted 4 times per second	The tape is nearing its end.	Operation continues.	Replace the tape as necessary.
		Flashes		All 7 bars displayed	Lighted	Flashes 4 times per second	Continuous tone	The tape has reached its end.	Recording, playback or fast forward operation stops.	Replace the cassette or rewind the tape.
BATTERY END	E BATT F	Flashes	1 of the 7 bars displayed		Flashes 1 time per second	Flashes 1 time per second	Emitted 4 times per second*1)	The battery has almost run out.	Operation continues.	Replace the battery as necessary.
		Flashes	All 7 bars displayed		Lighted	Flashes 4 times per second	Continuous tone	The battery has run out.	Operation stops.	Replace the battery.

*1) During recording

*2) During playback, fast forward or rewind

<Notes>

• When trouble occurs with the external VTR connected to the unit, warnings are displayed only by the unit's REC and TALLY lamps.

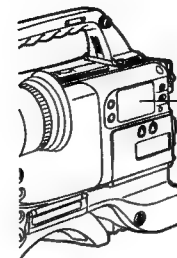
• When connecting the external VTR to the 26-pin output adaptor and recording simultaneously with the internal and external VTRs, the REC and TALLY lamps flash if trouble occurs in either VTR. Check the warning displays of each VTR to confirm the error contents.

Warning system priorities are as follows.

- 1 SLACK
- 2 BATTERY END
- 3 TAPE END
- 4 BATTERY NEAR END
- 5 TAPE NEAR END
- 6 HUMID
- 7 SERVO
- 8 RF

Error Codes

When an error occurs in the unit for some reason or other, the following error codes appear in the display window.



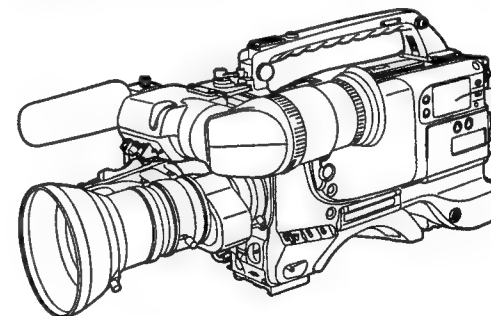
Code No.	Contents
8	Solenoid trouble
9	The servo is not locked.
A	Condensation has occurred.
B	Supply reel trouble
C	Take-up reel trouble
D	Capstan trouble
E	Cylinder trouble
F	Loading trouble

Maintenance

Condensation

If the unit is moved from a cold location to a warm location or used in areas with high humidity, the moisture in the air may adhere as water droplets on the head drum. This is called condensation, and if the tape is run under these conditions, it will easily stick to the drum. Therefore, the following points should be observed.

- If the unit is moved under conditions where condensation may occur, eject the tape.
- Before inserting the tape, set the POWER switch to ON and check that the HUMID display in the display window is not lighted. If the HUMID display is lighted, do not insert the tape until the display goes off.



The HUMID display is not lighted.

Maintenance

Cleaning the Video Heads

Use the AJ-CL12MP cleaning cassette when head cleaning is required. Improper use of the cleaning cassette may damage the video heads. Therefore, read the Handling Instructions for the cleaning tape carefully before use.

Cleaning the Viewfinder

- Do not use thinner or other solvents to remove dirt from the viewfinder.
- Wipe the lens with lens cleaner available on the market.
- Absolutely do not wipe the mirror. If dirt, etc. has adhered to the mirror, remove it using an air blower available on the market.

Characteristic Phenomenon of CCD Cameras

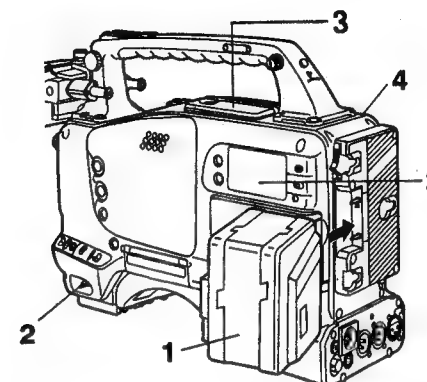
Smear

Smear occurs when shooting high-intensity subjects, and occurs more easily as the electronic shutter speed increases.

Inspections Before Shooting

Perform the following inspections before shooting to check that all systems are operating properly. Checking the image with a colour monitor is recommended.

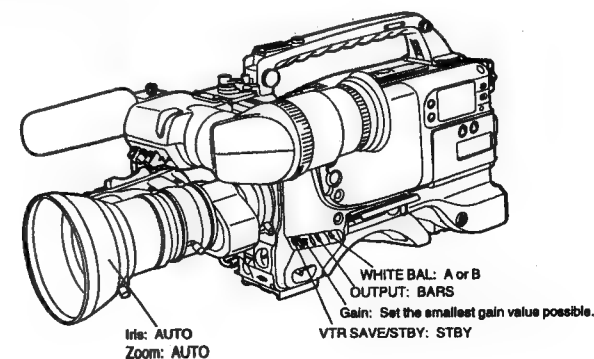
Inspection Preparations



- 1 Insert a charged battery pack.
- 2 Set the POWER switch to ON and check that the HUMID display does not appear and that five or more bars of the remaining battery level display are lighted.
 - If the HUMID display appears, wait until the display goes off.
 - If five or more bars of the remaining battery level display are not lighted, replace the battery pack with a sufficiently charged battery pack.
- 3 Check that there are no cables, etc. around the cassette holder and top panel, and then press the EJECT button to open the cassette holder.
- 4 Check the following items, and then insert a cassette and close the cassette holder.
 - The cassette is not set to the write protect status.
 - There is no slack in the tape.

Inspecting the Camera Section

Set the switches as follows.



Inspections Before Shooting

Inspecting the Viewfinder

- 1 Adjust the position of the viewfinder.
- 2 Check that the colour bar appears on the viewfinder screen, and then adjust the BRIGHT, CONTRAST and PEAKING controls so that the colour bar appears clearly on the viewfinder.
- 3 Check the following items.
 - (1) Set the MENU SET/OFF switch to SET and check that the setting menu appears on the viewfinder screen.
 - (2) Press the PAGE button and check that the setting menu page changes.
 - (3) Press the SHIFT/ITEM switch and check that the cursor moves within the page.
 - (4) Press the UP or DOWN button to check that the setting or ON/OFF display of the item selected with the cursor changes.
- 4 Set the OUTPUT/AUTO KNEE switch to CAM and switch the FILTER knob to 1, 2, 3 and 4. Check that the number of the FILTER display on the viewfinder screen changes in accordance with the knob position.
- 5 Perform the following operations to check that the (I) lamp lights when the items set to ON at the (I) LED page are operated.
 - (1) Set the gain to any value other than 0 dB with the GAIN switch.
 - (2) Set the SHUTTER switch to ON.
 - (3) Set the WHITE BAL switch to PRST.
 - (4) Insert the lens extender.
 - (5) Set the FILTER knob to any position other than "1".
- 6 Press the SHUTTER switch repeatedly from the ON position to the SEL side and check that the shutter setting on the viewfinder screen changes.
- 7 Aim the lens at an appropriate subject and turn the focus ring to bring the subject into focus. Check the image appearing in the viewfinder.
- 8 Set both the AUDIO IN CH1 and CH2 switches to FRONT [MIC] and set LEVEL METER on the VF DISPLAY page of the setting menu to ON. Check that the audio level appears on the viewfinder screen when sound is input from the microphone connected to the MIC IN jack on the front panel. Then, check that the audio level disappears from the viewfinder screen when LEVEL METER on the VF DISPLAY page of the setting menu is set to OFF.
- 9 Check that the zebra pattern appears on the viewfinder screen when the ZEBRA switch is set to ON, and disappears when the ZEBRA switch is set to OFF.

<Note>

The items and functions in steps 3 to 6 may not be displayed or may not operate depending on the setting conditions. Set the unit to engineer mode, set DISPLAY MODE on the VF DISPLAY page of the setting menu to "3", and then set the required items at the SHUTTER SPEED, (I) LED and MENU SELECT 1/3 to 3/3 pages.

Inspecting the Iris and Zoom Functions

- 1 Set the zoom to electric zoom mode and check the electric zoom operation. Check that the image changes to telephoto and wide angle.
- 2 Set the zoom to manual zoom mode and check the manual zoom operation. Turn the manual zoom lever and check that the image changes to telephoto and wide angle.
- 3 Set the iris to automatic adjustment mode and aim the lens at subjects with differing brightness to check that the automatic iris adjustment functions.
- 4 Set the iris to manual adjustment mode and turn the iris ring to check the manual iris adjustment.
- 5 Hold down the instant iris automatic adjustment button and aim the lens at subjects with differing brightness to check the instant iris automatic adjustment performance.
- 6 Return the iris to automatic adjustment mode and change the GAIN switch setting to L, M and H to check the following items.
 - The iris is adjusted with respect to subjects with the same brightness in accordance with the switch setting.
 - The gain value display on the viewfinder screen changes in accordance with the switch setting.
- 7 When a lens with an extender is mounted, set the extender to the used position to check that the extender functions properly.

Perform "(1) Tape Running Inspections" to "(4) Earphone and Speaker Inspections" below consecutively.

Inspecting the VTR Section

(1) Tape Running Inspections

- 1 Set the VTR SAVE/STBY switch to SAVE and check that the VTR SAVE lamp inside the viewfinder lights.
- 2 Set the VTR SAVE/STBY switch to STBY and check that the VTR SAVE lamp goes off.
- 3 Set the F-RUN/R-RUN switch to R-RUN.
- 4 Set the DISPLAY switch to CTL.
- 5 Press the unit's VTR START button and check the following items.
 - The tape reels turn.
 - The counter display number changes.
 - The REC lamp inside the viewfinder lights.
 - The RF and SERVO lamps in the display window do not light.
- 6 Press the unit's VTR START button again. Check that the tape stops and the REC lamp inside the viewfinder goes off.
- 7 Check the same operations as in steps 5 and 6 using the VTR button of the lens.
- 8 Press the RESET button and check that the counter display number changes to "00:00:00".
- 9 Set the LIGHT switch to ON and check that the display window is illuminated.
- 10 Press the REW button and then press the PLAY button after the tape has rewound for a while. Check that the recording, playback and rewind operations are performed properly.
- 11 Press the FF button and check that fast forward operation is performed properly.

Inspections Before Shooting

(2) Inspection of Audio Level Automatic Adjustment Functions

- 1 Set the AUDIO SELECT CH1/CH2 switch to AUTO.
- 2 Set the AUDIO IN CH1/CH2 switch to FRONT [MIC].
- 3 Aim a microphone connected to the MIC IN jack at an appropriate sound source and check that the level display for both CH1 and CH2 changes in accordance with the sound level.

(3) Inspection of Audio Level Manual Adjustment Functions

- 1 Set the AUDIO IN CH1/CH2 switch to FRONT [MIC].
- 2 Set the AUDIO SELECT CH1/CH2 switch to MAN.
- 3 Turn the AUDIO LEVEL CH1/CH2 controls and check that the level display increases when the controls are turned to the right.

(4) Earphone and Speaker Inspections

- 1 Set the VTR SAVE/STBY switch to STBY.
- 2 Turn the MONITOR control and check that the speaker volume changes.
- 3 Connect an earphone to the PHONES jack. Check that the sound to the speaker is cut off and that the microphone sound can be heard from the earphone.
- 4 Turn the MONITOR control and check that the earphone volume changes.

(5) Inspections when Using an External Microphone

- 1 Connect an external microphone to the AUDIO IN CH1 and CH2 connectors.
- 2 Set the AUDIO IN CH1/CH2 switch to REAR [MIC].
- 3 Aim the microphone at a sound source and check that the audio level meter in the display window and the audio level display inside the viewfinder change in accordance with the sound level. Each channel can also be checked separately by connecting a single microphone to each channel.

(6) Time Code and User Bit-Related Inspections

- 1 Set the user bit as necessary.
• See "Setting the User Bit" (page 78) for a description of setting methods.
- 2 Set the time code.
• See "Setting the Time Code" (page 77) for a description of setting methods.
- 3 Set the F-RUN/R-RUN switch to R-RUN.
- 4 Press the VTR START button.
Check that the tape runs and the counter display number changes.
- 5 Press the VTR START button again.
Check that the tape stops and the counter display number stops changing.
- 6 Set the F-RUN/R-RUN switch to F-RUN.
Check that the counter display number changes regardless of the tape running status.
- 7 Set the DISPLAY switch to UB.
Check that the set user bit is displayed.

MEMO

SECTION 2

MAINTENANCE & DISASSEMBLY PROCEDURES

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1. Maintenance Parts

1-1. Maintenance Schedule

No.	Name	Part Number	Using Hours (hrs)			
			500	1000	2000	3000
	Tape Path Cleaning		●	●	●	
1	Cylinder Unit	VEG1337		●	●	◎
2	A/C Head	VBR0301				◎
3	S Reel(Rotor Unit)	VXP1681				◎
4	T Reel(Rotor Unit)	VXP1681				◎
5	Loading Motor 1 Unit	VEM0584				◎
6	Pinch Arm Unit	VXL2684		● * 1	● * 1	◎
7	M Cassette Brake Base Unit	VXA5792				◎
8	Mode Switch Unit	VES0814				◎
9	Cleaning Arm Unit	VXL2748		●	●	◎
10	Pinch Solenoid	VSJ0217				◎
11	MIC Base Unit	VXA5583				◎
12	S1 Loading Arm Unit	VXL2709				◎
13	T1 Boat Unit	VXA5852				◎
14	Cleaner Solenoid	VSJ0222				◎
15	S Post Base Unit	VXA5553				◎
16	Tension Arm Unit	VXL2734				◎
17	Main Cam Gear	VDG1168				◎
	Cassette Up Unit	VXA5870				● * 2
	Mech. Chassis Unit (NTSC)	VXY1169				●
	Mech. Chassis Unit (PAL)	VXY1229				●

Note: Using Hours are based on the head rotation hours.

Using hours are recommendation. It may depend on temperature, humidity or dusty.

Using hours are listed as the reference of maintenance. They do not mean guarantee hours.

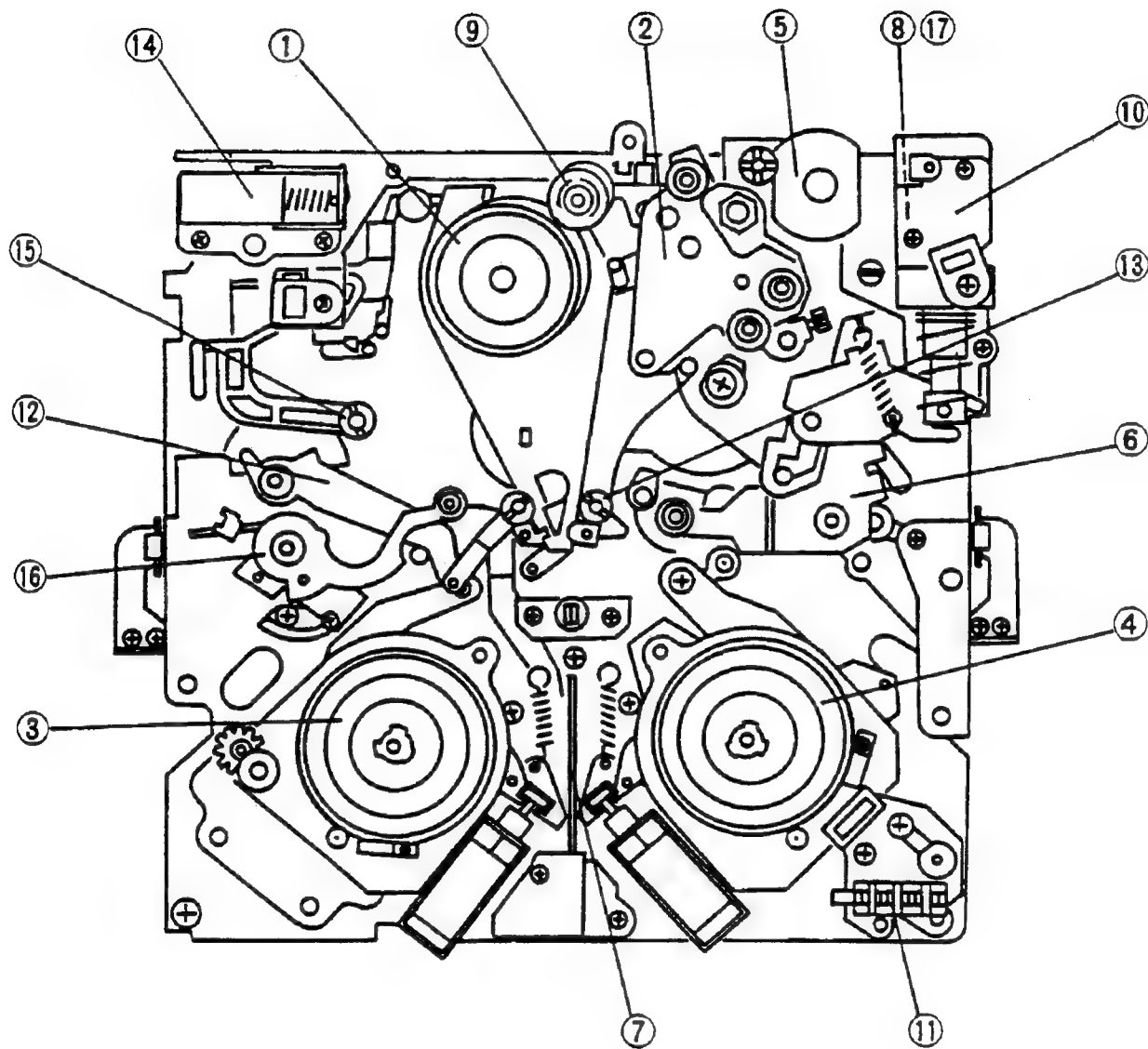
◎ : These parts are included in Mech. Chassis Unit. Replacing Mech. Chassis Unit is recommended.

*1. The lubrication is necessary when replacing the Pinch Arm Unit.

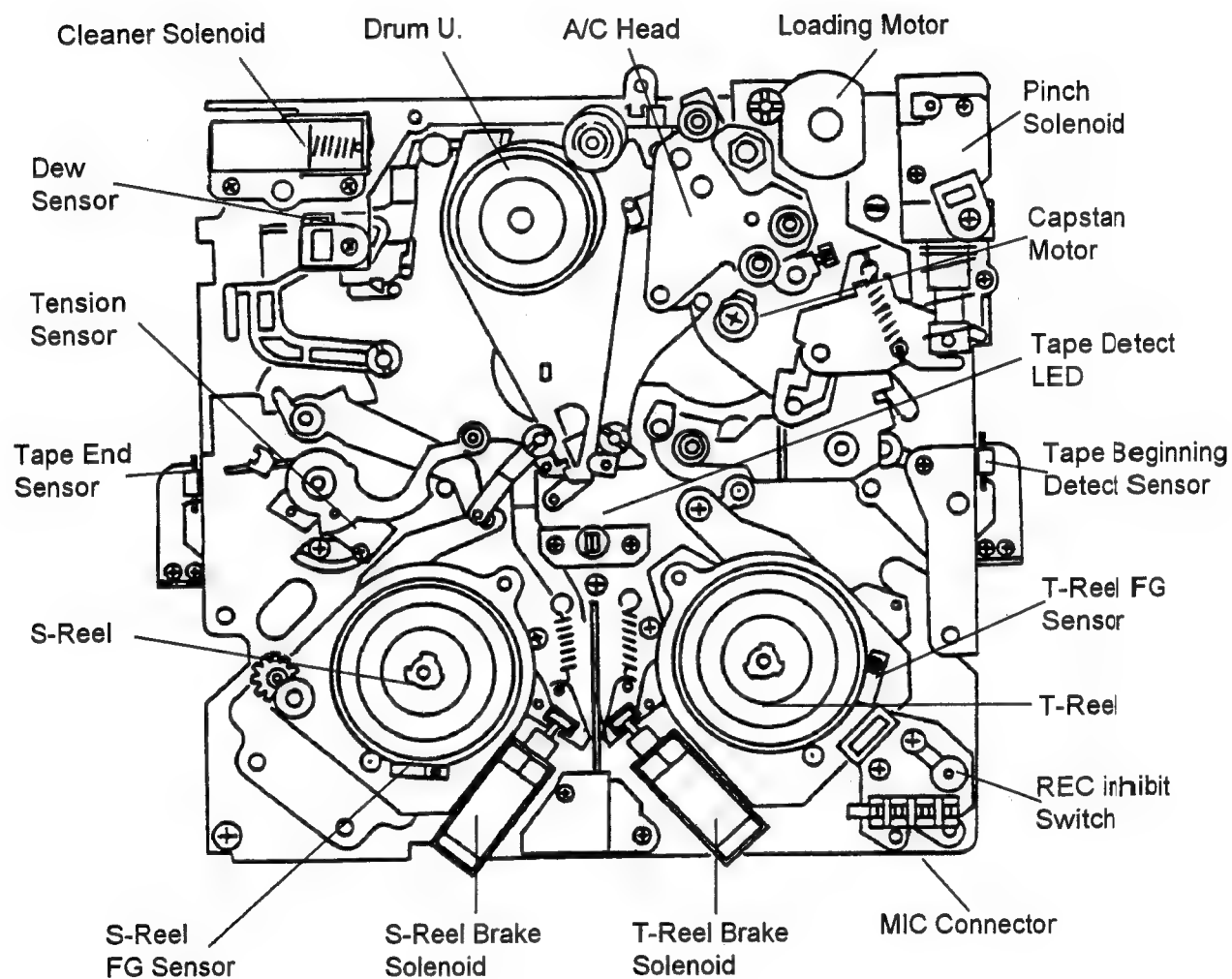
*2. The Cassette Up Unit is a part of Mech. Chassis Unit.

*3. The Mech. Chassis Unit includes Servo P.C.Board.

1-2. Parts Location

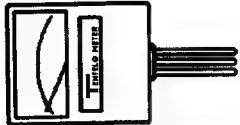

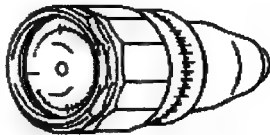



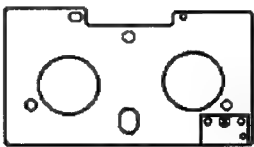
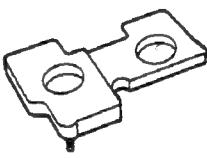
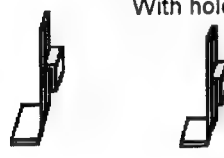
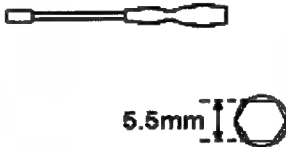

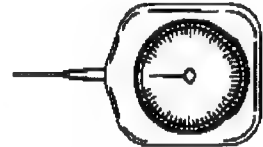






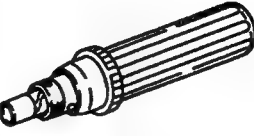
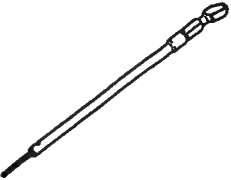


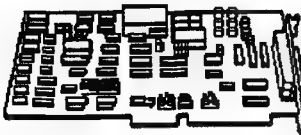
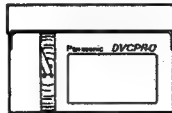
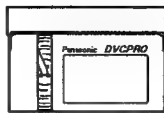


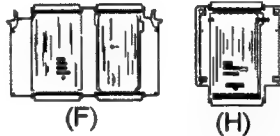
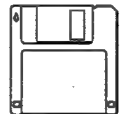

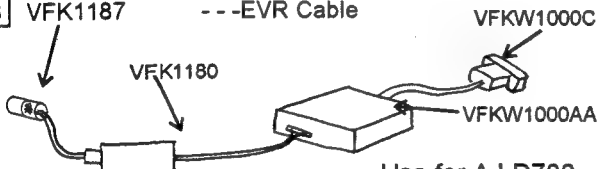






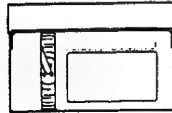
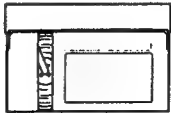
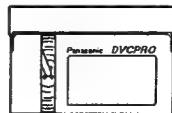
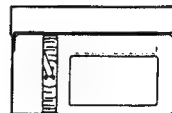
2. Sensors Location



3. Jig & Tools

Fig	ITEM	PART No.	JIG & EQUIPMENT	AJ-D700	AJ-D750	Remark
1	Jig Tool	VFK1145	Back Tension Meter(T2-M30-P)	yes	yes	
2		VFK1149	Post Driver	yes	yes	
3		VFK71	Dial Torque Gauge(150g)	yes	yes	
4		VFK1191	Dial Torque Gauge(45g)	yes	yes	
5		VFK1152	Dial Torque Gauge Adaptor	yes	yes	
6		VFK0357	Eccentric Screwdriver(1.5)	yes	yes	
7		VFK1154	Post Height Fixture	yes	yes	
8		VFK1153	Mech. Neutral Plate(Post)	yes	yes	
9		VFK1157	Mech. Neutral Plate(Cassette)	yes	yes	
10		VFK1155	Neutral Position Tool(Gold)	yes	yes	
11		VFK1156	Neutral Position Tool(Black)	yes	yes	
12		VFK1208	Neutral Position Tool(Black With Hole)	yes	yes	
13		VFK1150	Nut Driver(5.5mm)	yes	yes	
14		VFK1151	Nut Driver(2.5mm)	yes	yes	
15		VFK1188	Dial Tension Gauge(30g)	yes	yes	
16		VFK0948	Check Light	yes	yes	
17		VFK0749	Froiral Grease (for plastic)	yes	yes	
18		MOR265	Morlytone Grease (for metal)	yes	yes	
19		VFK1146	Philips Driver(Fine)(00-75)	yes	yes	
20		VFK1147	Philips Driver(Fine)(0-100)	yes	yes	
21		VFK1148	Hex.Driver(1.5)	yes	yes	
22		VFK1178	Hex.Driver(0.89)	yes	yes	
23		VFK1179	Hex.Driver(0.71)	yes	yes	
24		VFK1190	HEX. Wrench	yes	yes	
25		VFK1209	Torque Driver(0.4-3Kg)	yes	yes	
26		VFK0912	Post Axis Driver(1.5mm)	yes	yes	
27		VFK1300	A/D Board (DAQ-12 Quatech)	yes	yes	Purchase locally
28		VFM3580KM	Alignment Tape(No.1)	yes	yes	for NTSC
29		VFM3581KM	Alignment Tape(No.2)	yes	yes	for NTSC
30		VFM3582KM	Alignment Tape(No.3)	yes	yes	for NTSC
31		AJ-CL12MP	Cleaning Tape	yes	yes	SALES
32		VFK1159	LISTA Software	yes	yes	
33		VFK1186	LISTA CABLE	yes	yes	
34		VFK1194	EXTENSION BOARD	yes	no	
35		VFK1192	F EXTENSION BOARD	no	yes	
36		VFK1193	H EXTENSION BOARD	no	yes	
37		VFK1162A	EVR Tool Software	yes	no	
38		VFK1158A	B.E.R. Counter Tool	yes	no	
39		VFK1185	B.E.R. Counter Cable	yes	no	
40		VFKW1000AA	EVR I/F Box Unit	yes	no	
41		VFKW1000C	EVR RS232C Cable	yes	no	
42		VFK1180	EVR SUB I/F Unit	yes	no	
43		VFK1187	EVR Cable	yes	no	
44		VFK1210	Multi-Canon Cable	yes	no	
45		VFK0369	Tweezers	yes	yes	
46		VFK0371	Radio Prier	yes	yes	
47		VFK0372	Cutter Prier	yes	yes	
48		VFK0338	Trimmer Adjustment Driver	yes	yes	
49		VFK0337	Philips Driver	yes	yes	
50		VFM3000EDS	Alignment Tape(DV LISTA)	no	yes	
51		VFM3010EDS	Alignment Tape(DV Color Bar)	no	yes	for NTSC
52		VFM3680KM	Alignment Tape(No.1)	yes	yes	for PAL
53		VFM3681KM	Alignment Tape(No.2)	yes	yes	for PAL
54		VFM3682KM	Alignment Tape(No.3)	yes	yes	for PAL
55		VFM3110EDS	Alignment Tape(DV Color Bar)	no	yes	for PAL
56		VFK1160A	RF Auto Adjustment Soft	no	yes	
57		VFK1163	RF Auto Adjustment Tool	no	yes	

<p>1 VFK1145 Back Tension Meter</p>  <p>Model: T2-M30-P</p>	<p>2 VFK1149 Post Driver</p> 	<p>3 VFK71 (150g) 4 VFK1191(45g) Dial Torque Gauge</p> 	<p>5 VFK1152 Dial Torque Gauge Adapter</p> 
<p>6 VFK0357(φ 1.5) Eccentric Screwdriver</p> 	<p>7 VFK1154 Post Height Fixture</p> 	<p>8 VFK1153 Mech Neutral Plate(Post)</p> 	<p>9 VFK1157 Mech Neutral Plate (cassette)</p> 
<p>10 VFK1155 (REV, Gold) 11 VFK1156 (PLAY, Black) 12 VFK1208(Neutral,Black With hole)</p>  <p>(Gold) (Black)</p>	<p>13 VFK1150 Nut Driver(5.5mm)</p>  <p>5.5mm</p>	<p>14 VFK1151 Nut Driver(2.5mm)</p>  <p>2.5mm</p>	<p>15 VFK1188(30g) Dial Tension Gauge</p> 
<p>16 VFK0948(or purchase locally) Check Light</p> 	<p>17 VFK0749 Froiral Grease(White) (for plastic part)</p> 	<p>18 MOR265 Morlytone Grease(Black) (for metal part)</p> 	<p>19 VFK1146 (00 x 75) 20 VFK1147 (0 x 100) Philips Driver</p> 
<p>21 VFK1148(1.5mm) 22 VFK1178(0.89mm) 23 VFK1179(0.71mm) Hex. Driver</p> 	<p>24 VFK1190 (1.5mm) Hex. Wrench</p> 	<p>25 VFK1209 Torque Driver(0.4-3Kg)</p> 	<p>26 VFK0912 Post Axis Driver(1.5 mm)</p> 

<div>27</div> <div>VFK1300</div> <div>A/D Converter Board (For Quatech. DAQ-12 Purchase Locally)</div> <div></div>	<div>28</div> <div>VFM3580KM</div> <div>29</div> <div>VFM3581KM</div> <div>30</div> <div>VFM3582KM</div> <div>DVC PRO Alignment Tape</div> <div></div>	<div>31</div> <div>AJ-CL12MP</div> <div>Cleaning Tape</div> <div></div>	<div>32</div> <div>VFK1159</div> <div>LISTA Software</div> <div>33</div> <div>VFK1186</div> <div>LISTA Cable</div> <div></div>
<div>34</div> <div>VFK1194</div> <div>Extension Board</div> <div></div> <div>Use for AJ-D700</div>	<div>35</div> <div>VFK1192 ---(F)</div> <div>36</div> <div>VFK1193 ---(H)</div> <div>Extension Board</div> <div></div> <div>(F) (H)</div> <div>Use for AJ-D750</div>	<div>37</div> <div>VFK1162A</div> <div>EVR Tool Software</div> <div></div> <div>Use for AJ-D700</div>	<div>38</div> <div>VFK1158A</div> <div>B.E.R. Counter Tool</div> <div>39</div> <div>VFK1185</div> <div>B.E.R. Counter Cable</div> <div></div> <div>Use for AJ-D700</div>
<div>40</div> <div>VFKW1000AA ---EVR I/F Box Unit</div> <div>41</div> <div>VFKW1000C ---EVR RS232C Cable</div> <div>42</div> <div>VFK1180 ---EVR SUB I/F Unit</div> <div>43</div> <div>VFK1187 ---EVR Cable</div> <div></div> <div>VFK1180 VFKW1000C VFKW1000AA</div> <div>Use for AJ-D700</div>	<div>44</div> <div>VFK1210</div> <div>Multi-Canon Cable</div> <div></div> <div>Use for AJ-D700</div>	<div>45</div> <div>VFK0369</div> <div>Tweezers</div> <div></div>	
<div>46</div> <div>VFK0371</div> <div>Radio Prier</div> <div></div>	<div>47</div> <div>VFK0372</div> <div>Cutter Prier</div> <div></div>	<div>48</div> <div>VFK0338</div> <div>Trimmer Adjustment Driver</div> <div></div>	<div>49</div> <div>VFK0337</div> <div>Philips Driver</div> <div></div>
<div>50</div> <div>VFM3000EDS</div> <div>DV Alignment Tape° (LISTA)</div> <div></div> <div>Use for AJ-D750</div>	<div>51</div> <div>VFM3010EDS</div> <div>DV Alignment Tape (Color Bar)</div> <div></div> <div>Use for AJ-D750</div>	<div>52</div> <div>VFM3680KM</div> <div>53</div> <div>VFM3681KM</div> <div>54</div> <div>VFM3682KM</div> <div>DVC PRO Alignment Tape</div> <div></div>	<div>55</div> <div>VFM3110EDS</div> <div>DV Alignment Tape (Color Bar)</div> <div></div> <div>Use for AJ-D750</div>

<div data-bbox="181 286 220 322" data-label="Text">56</div> <div data-bbox="226 286 363 322" data-label="Text">VFK1160A</div> <div data-bbox="188 322 478 362" data-label="Text">RF Auto Adjustment Soft</div> <div data-bbox="285 425 408 544" data-label="Image"> </div>	<div data-bbox="507 286 545 322" data-label="Text">57</div> <div data-bbox="552 286 667 322" data-label="Text">VFK1163</div> <div data-bbox="513 322 799 358" data-label="Text">RF Auto Adjustment Tool</div> <div data-bbox="523 432 798 539" data-label="Image"> </div>		

Recommended Test And Service Equipment

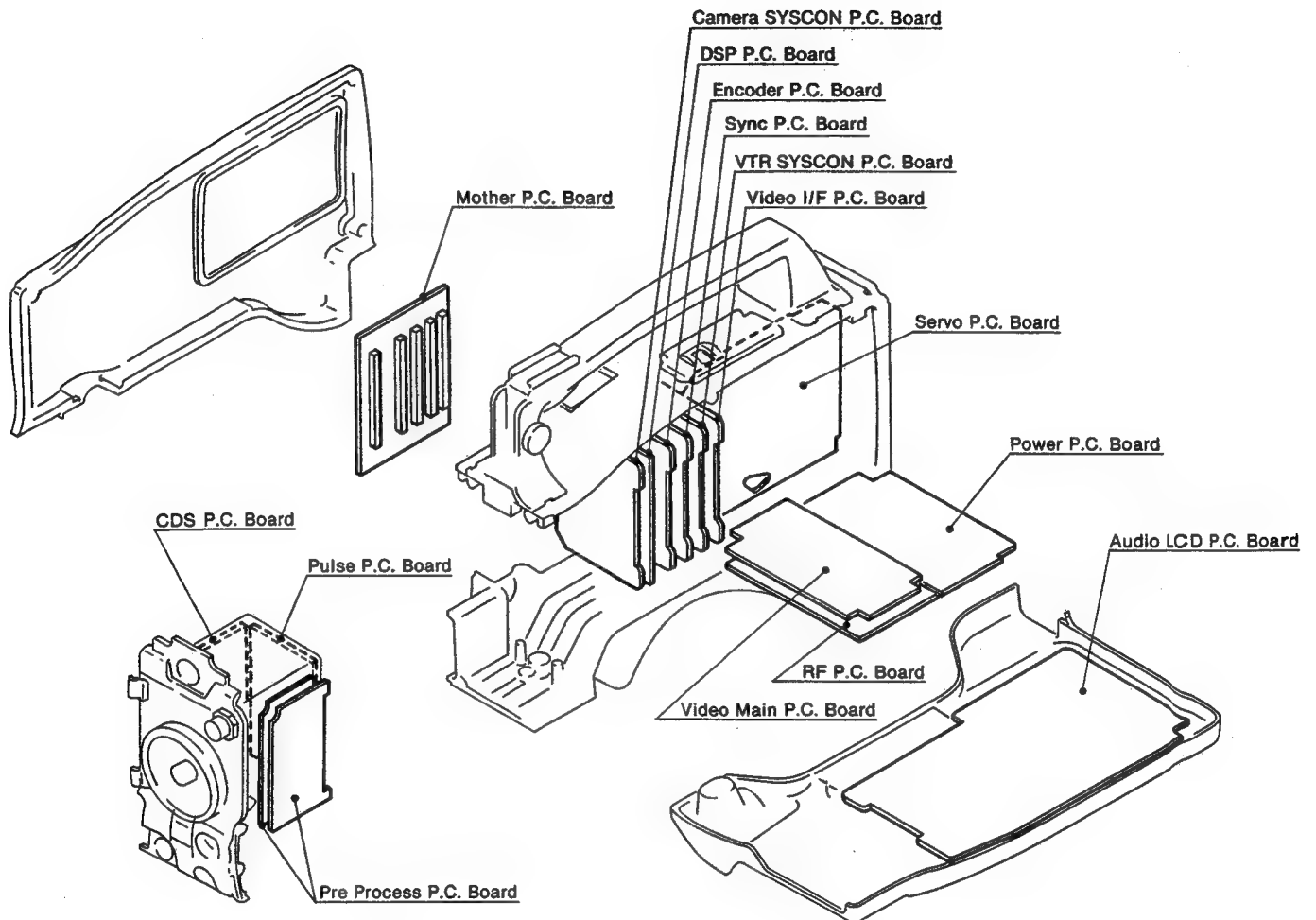
NTSC

Part No.	Name	Remark
TSG130A(OP.04)	Analog Component Signal Generator	TEKTRONIX
	Oscilloscope	TEKTRONIX
1760(OP.SC) or 1780R	Waveform / Vector Monitor	TEKTRONIX
	Digital Volt Meter	
	Frequency Counter	
	VTVM	
	Distortion Meter	
	CR Oscillator	

PAL

Part No.	Name	Remark
TSG131A(OP.04)	Analog Component Signal Generator	TEKTRONIX
	Oscilloscope	TEKTRONIX
1751(OP.SC) or 1781R	Waveform / Vector Monitor	TEKTRONIX
	Digital Volt Meter	
	Frequency Counter	
	VTVM	Frequency Band Width 4Hz-500KHz
	Distortion Meter	
	CR Oscillator	

4. Boards Location



5. Alignment Tapes

DVCPRO Alignment Tape

for NTSC

VFM3580KM (NTSC)

Time (min)	Video		PCM		CUE	
	Signal	Purpose	Signal	Purpose	Signal	Purpose
0:00	Color Bar SMPTE(75%)	Composite Video Level Confirmation	1kHz -20dB	Audio Level Confirmation	1kHz 0VU	CUE Level Confirmation
7:00	Color Bar Full Field(75%)	Component Video Level Confirmation				
14:00	H Sweep	Frequency Response			6kHz 0VU	A/C Head Azimuth
18:00	Bowtie(500k)	Y/C Timing				
22:00	Pulse&Bar	Y/C Timing			1kHz	Frequency
26:00	Area Markers				300Hz~6kHz	Response
30:00						

VFM3581KM (NTSC)

Time(min)	Signal
0:00~20:00	ITI Pattern

VFM3582KM (NTSC)

Time(min)	Signal
0:00~10:00	X Value

for PAL

VFM3680KM (PAL)

Time (min)	Video		PCM		CUE	
	Signal	Purpose	Signal	Purpose	Signal	Purpose
0:00	Color Bar 100%	Video Level Confirmation	1kHz -18dBu	Audio Level Confirmation	1kHz Reference level	CUE Level Confirmation
10:00	H Sweep	Frequency Response				
14:00	Area Markers				6kHz Reference level	A/C Head Azimuth
18:00	Bowtie(500k)	Y/C Timing				
22:00	Pulse & Bar	Y/C Timing			1kHz 300Hz~6kHz	Frequency Response
26:00	Multi Pulse	Y/C Timing				
30:00						

VFM3681KM (PAL)

Time (min)	Signal
0:00 ~ 20:00	ITI Pattern

VFM3682KM (PAL)

Time (min)	Signal
0:00 ~ 10:00	X Value

6. Service Menu

This menu allows **service personnel** to service the AJ-D800. Adjustment procedures give a detail of how to use.

SERVICE ADJ		
GAMMA(SERV)	:	ON
R GAMMA(SERV)	:	----
B GAMMA(SERV)	:	----
TEST PULSE	:	OFF
ECU CONNECT	:	ECU
CONCEAL	:	ON
INNER ECC	:	ON
OUTER ECC	:	ON
IF ADJ	:	OFF
SERVO MODE	:	ATF

This menu sets the modes for servicing.

ITEM	RANGE	PRESET	REMARK
GAMMA (SERV)	ON/OFF	ON	GAMMA settings become effective.
R GAMMA (SERV)	-10~+10		Setting of Rch GAMMA.
B GAMMA (SERV)	-10~+10		Setting of Bch GAMMA.
TEST PULSE	ON/OFF	OFF	TEST PULSE becomes available.
ECU CONNECT	ECU/EVR	ECU	Connection with ECU connector.
CONCEAL	ON/OFF	ON	
INNER ECC	ON/OFF	ON	
OUT ECC	ON/OFF	ON	
IF ADJ	ON/OFF	OFF	Turn ON when adjusting VTR I/F.
SERVO MODE	ATF/CTL	ATF	Selection of SERVO MODE

This menu allows service personnel to service the AJ-D800. Adjustment procedures give a detail of how to use.

VTR D/A DATA

(01) 98 (02) 68 (03) 7B (04) B0
 (05) 00 (06) 00 (07) 8F (08) 92
 (09) 41 (0A) 44 (0B) 83 (0C) 54
 (0D) 50 (0E) BD(0F) B4 (10) D0
 (11) 3B (12) 88 (13) 88 (14) 00
 (15) 00 (16) 00 (17) 00 (18) 00
 (19) 8B (19) 92 (1A) 74 (1B) 87
 (1D) 7F (1E) 64 (1F) 4F (20) 9D
 (21) AC(22) 00 (23) 00 (24) FF

The data which are adjusted by EVR are displayed.

ITEM	RANGE	PRESET	REMARK
(00)~(24)			Only displayed.

This menu allows service personnel to service the AJ-D800. Adjustment procedures give a detail of how to use.

BATTERY SETTING

11.3V

The warning is given when the battery voltage is less than the above value.

ITEM	RANGE	PRESET	REMARK
BATTERY BEFORE END	11.0V~13.0V	11.3V	Adjusted by 0.1V step.

This menu allows service personnel to service the AJ-D800. Adjustment procedures give a detail of how to use.

WHITE SHADING

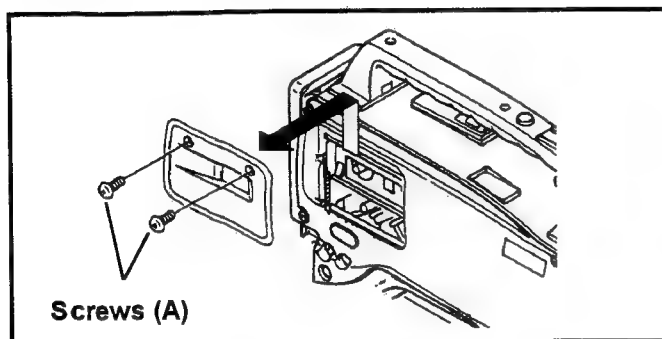
WHITE(DIGITAL)

ITEM	RANGE	PRESET	REMARK
WHITE(DIGITAL)			Execute the Auto White Shading(Digital).

7. Disassembly Procedures

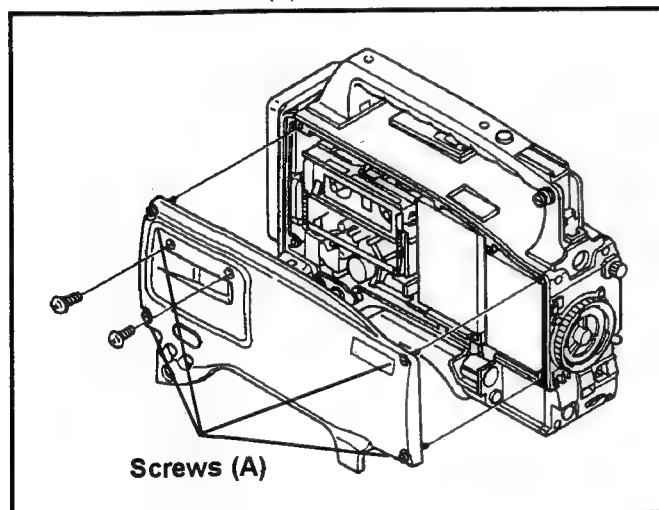
7-1. Removal of Cassette Cover

Remove the 2 screws (A). Slide the cover upward and remove it.



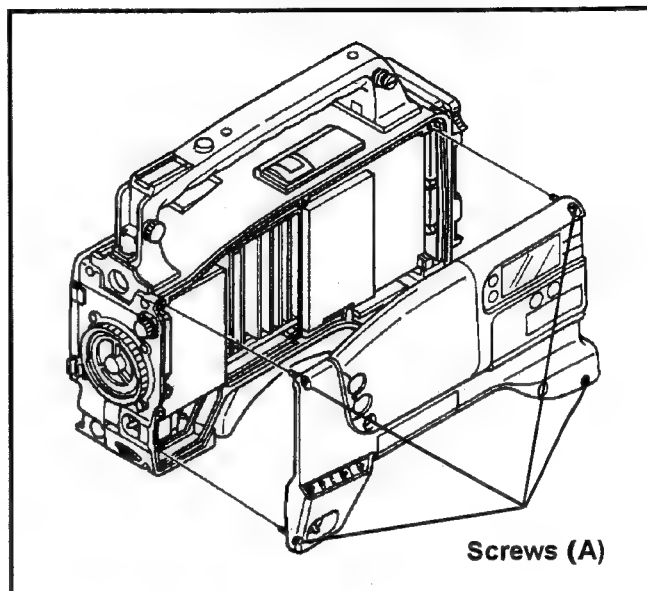
7-2. Removal of Left Side Panel

After removing the cassette cover according to 2-1., loosen the 4 screws (A) and remove the panel.



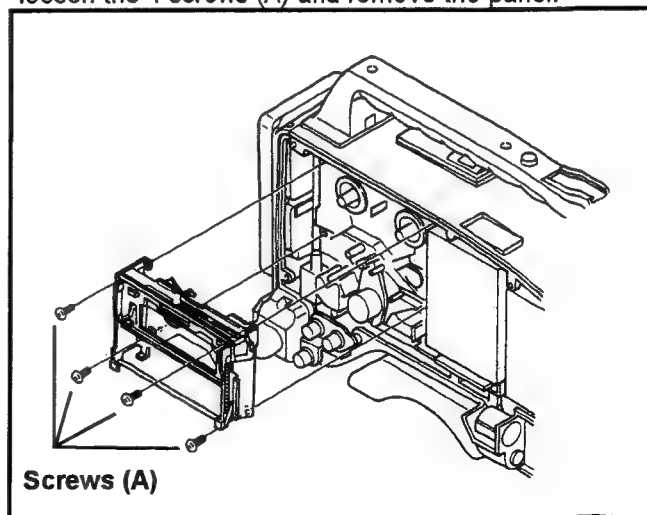
7-3. Removal of Right Side Panel

Loosen the 4 screws (A) and remove the panel.



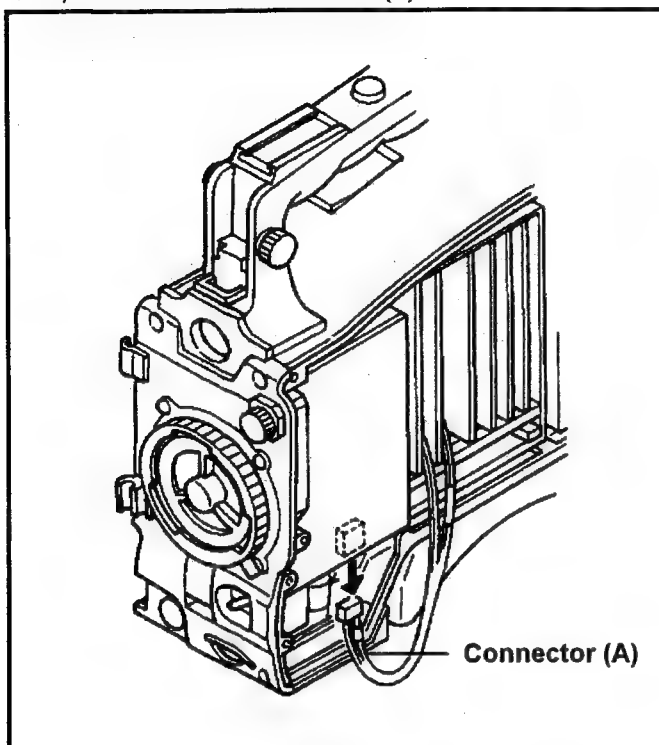
7-4. Removal of Cassette Up Unit

After removing the left side panel according to 2-2., loosen the 4 screws (A) and remove the panel.

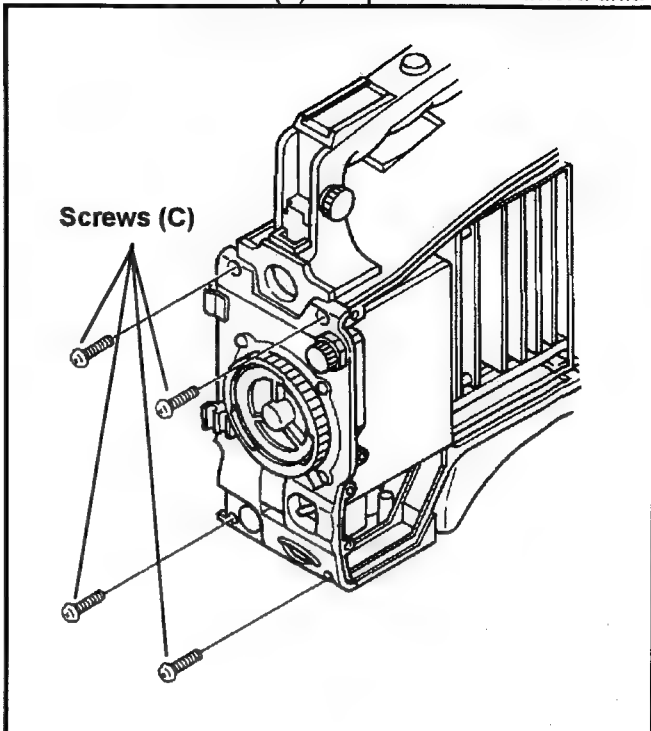


7-5. Removal of Camera Unit

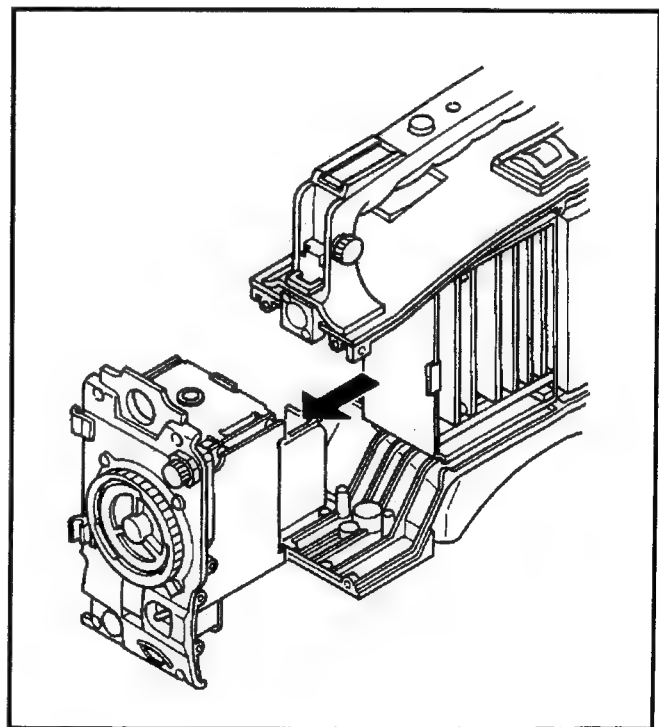
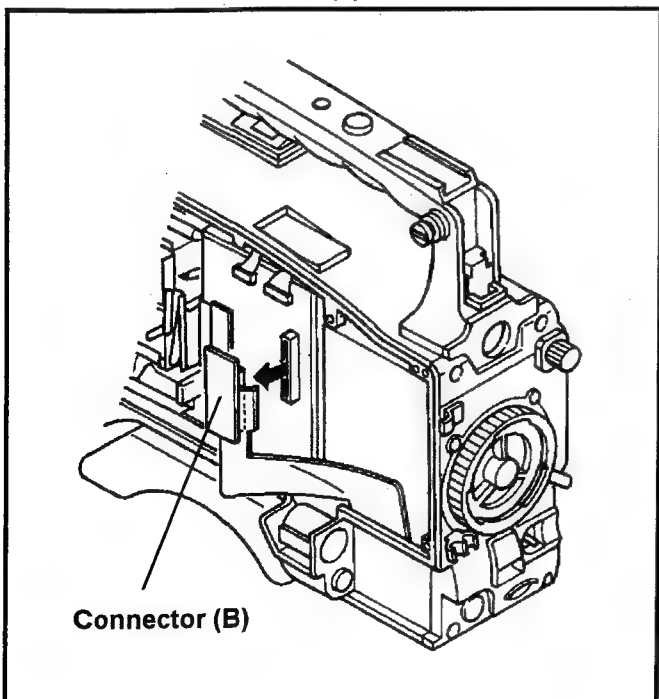
After removing the both panels according to 7-2. and 7-3., disconnect the connector (A).



Remove the 4 screws (C) and pull out the camera unit.

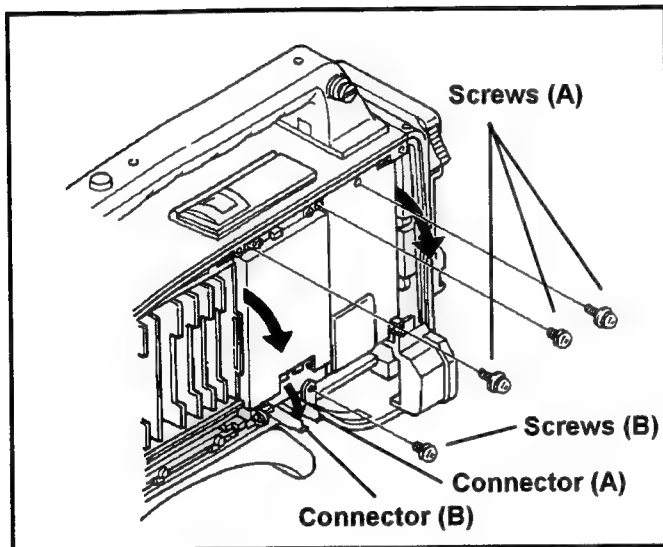


Disconnect the connector (B).



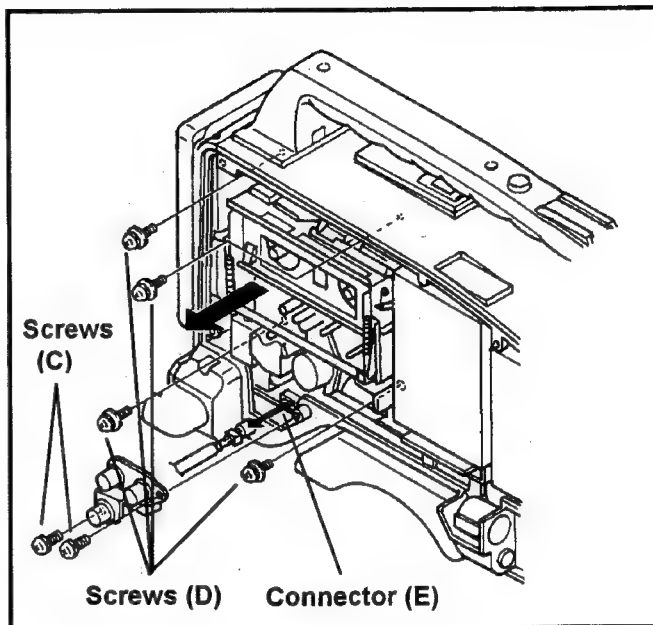
7-6. Removal of Mechanical Chassis Unit

After removing the right side panel according to 7-3., disconnect the connectors (A) and (B). Remove the 3 screws (A) and the screw (B) and lay down the boards.

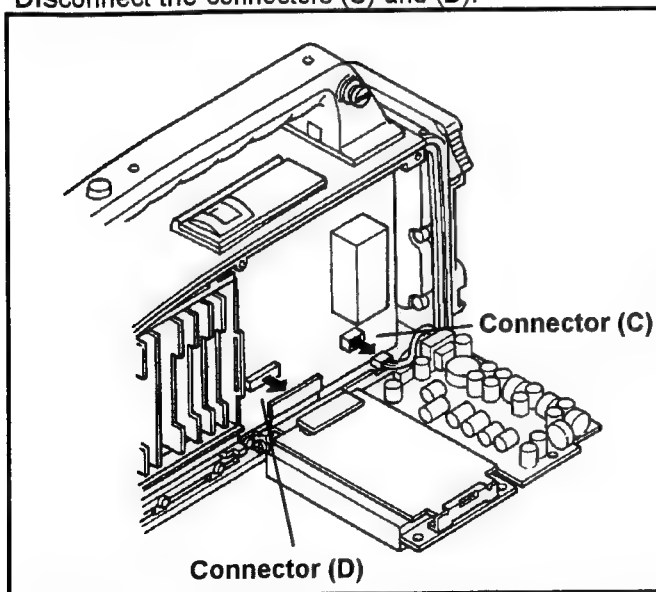


After removing the left side panel according to 7-2., remove the 2 screws (C) to disconnect the connector (E). Remove the 4 screws (D).

Remove the mechanical chassis with care not to scratch the connectors (A) and (B).

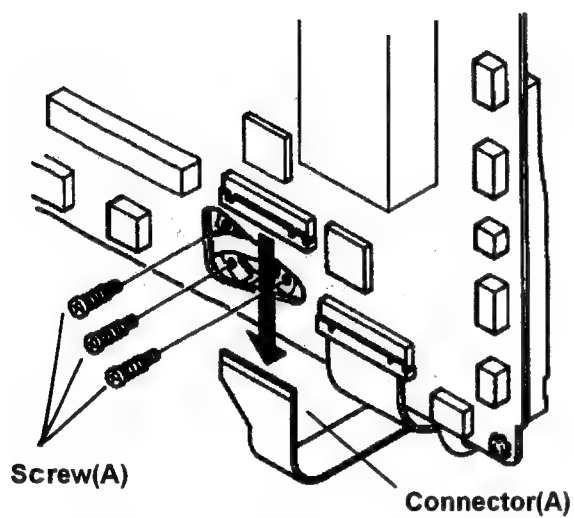


Disconnect the connectors (C) and (D).

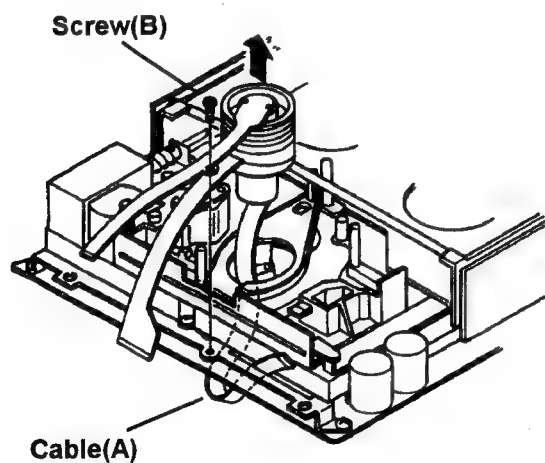


7-7. Removal of Drum Unit

After removing the mechanical chassis according to 7-6., disconnect the connector (A) and the 3 screws (A).



Remove the screw (B) and the drum unit with care not to scratch the cable (A).



8. Mechanical Parts Replacement and Adjustment Procedures

General

When mechanical parts are replaced, pay attention to the following notes.

1. Turn power off before replacing any part.
2. If any adjustment is required after replacing parts, perform the required adjustments.
3. Use proper fixture tools.
4. Make sure to clean the parts after replacement, Also when the mechanical parts are replaced, follow the replacement procedure.

8-1. Drum Unit Replacement

(Removal)

1. Remove the T1 Guide and Cleaning Arm Unit (Refer to item 8-8).
2. After removing the mechanical chassis according to item 7-6., disconnect the **connector (A)** and the **3 screws (A)**.

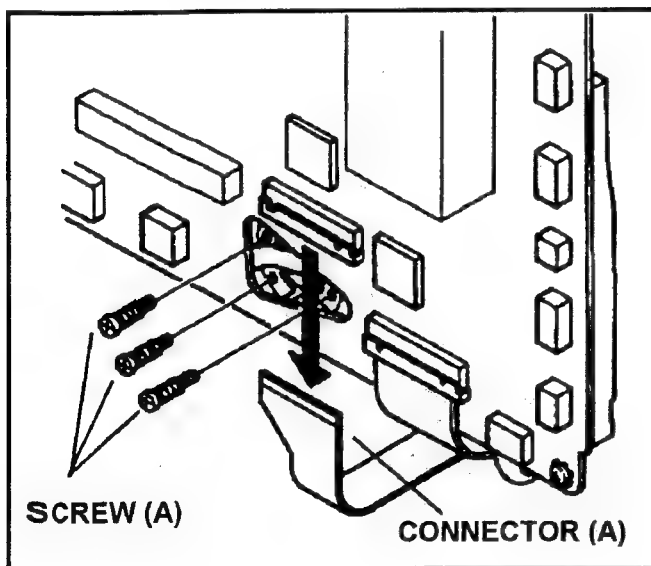


Fig. 8-1-1

Remove the screw (B) and the drum unit with care not to scratch the cable (A).

Note: Be careful when removing the flexible cable from the connector. Refer to the way to remove the connector as shown in Figure 8-1-4.

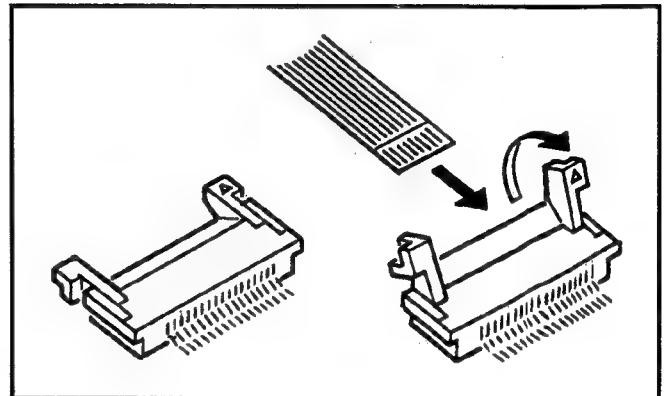


Fig. 8-1-4

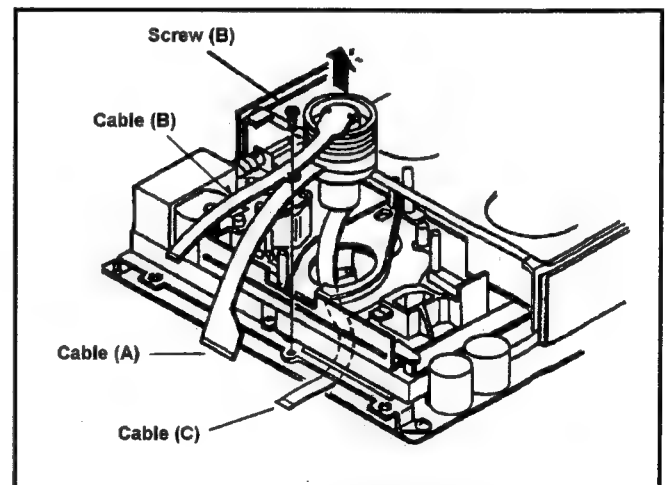


Fig. 8-1-2

Note: Never touch the cylinder with a finger directly when pulling out the Cylinder Unit.

(Installation)

1. Install the new Cylinder Unit according to the opposite procedures to removing.
2. After installing T1 Guide, T1 Guide position adjustment should be performed (Refer to item 8-8-1).

Note: When installing the Cylinder Unit, the pin on Mech. Chassis should match hole of Cylinder Unit as shown in Figure 8-1-3.

Note: Please put the flexible (B) and (C) between copper shield plate (D) and (E) as shown in Figure 8-1-5.

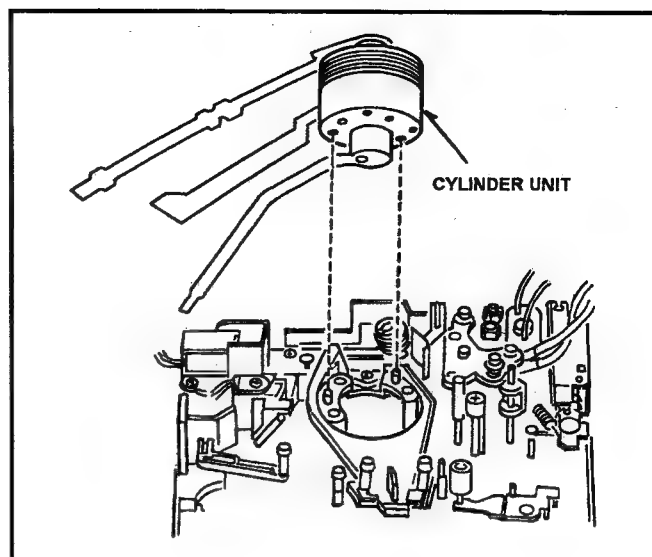


Fig. 8-1-3

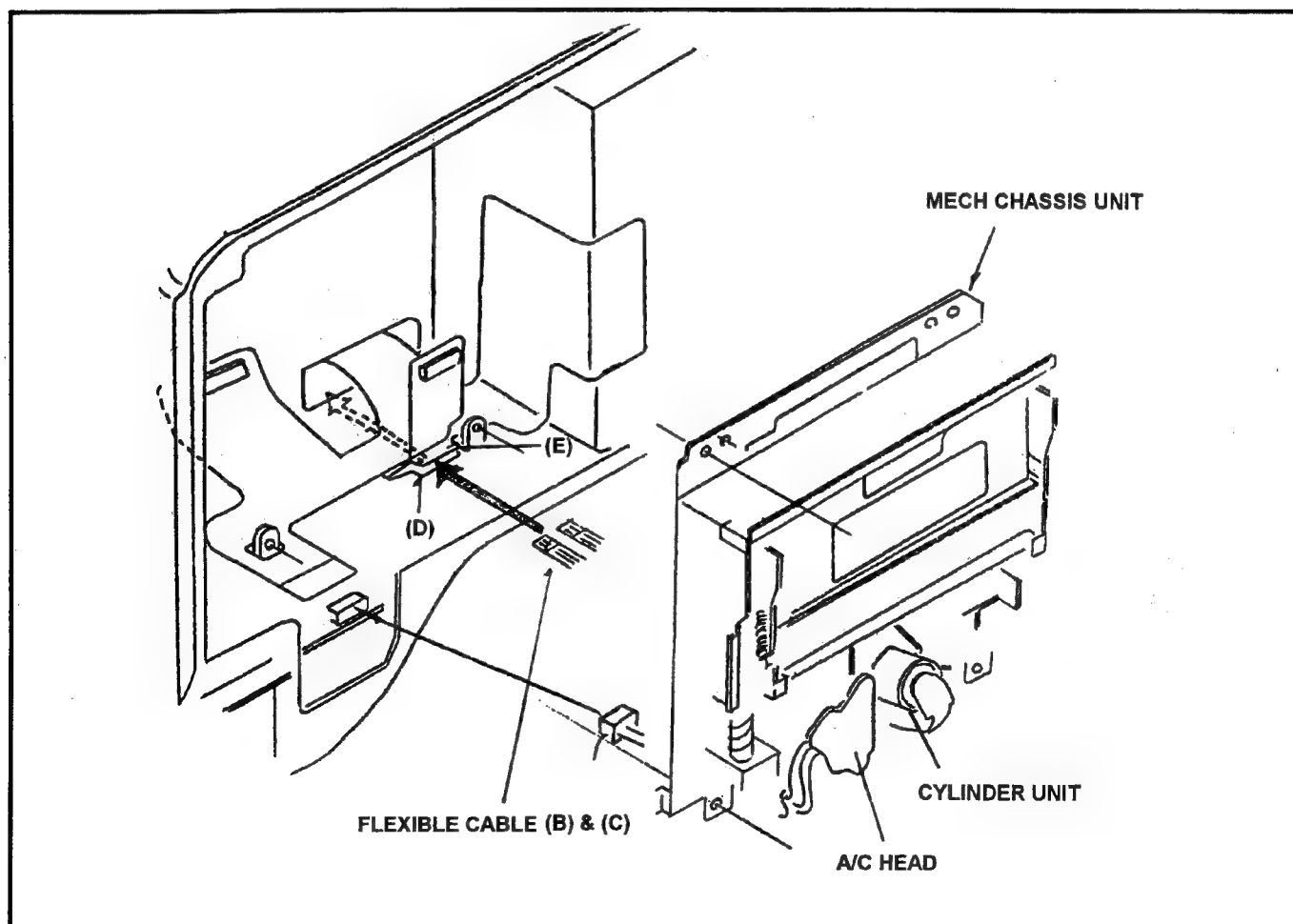


Fig. 8-1-5

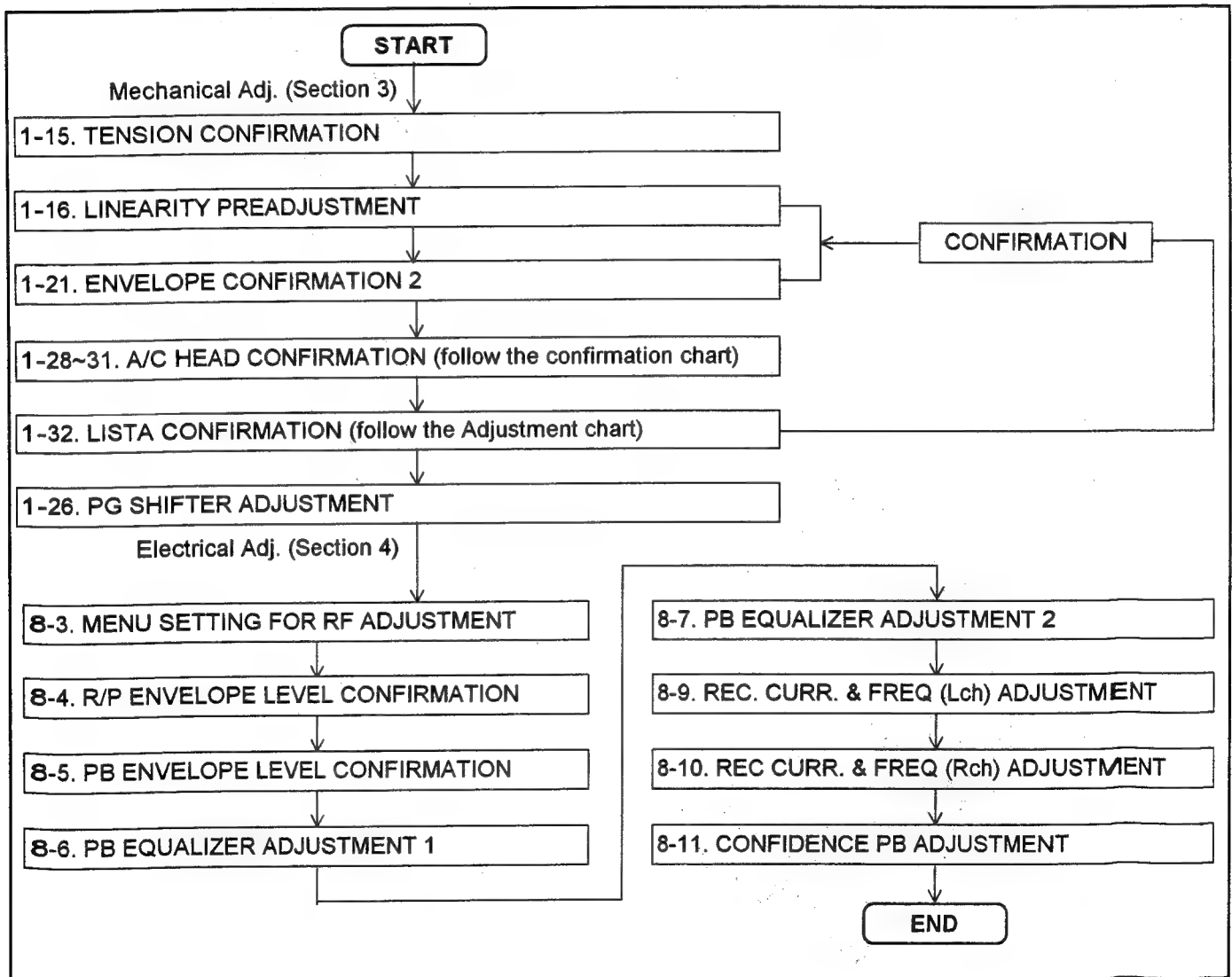
8-1-1. Adjustment Flow Chart After Drum Unit Replacement

1. After changing the Drum Unit, perform the following steps.

Adjustment Flowchart After Drum Unit & Mech. Chassis Replacement

Note: Confirm the tape path linearity before head replacement.

The number indicated on the chart below is item number on the Service Manual.



8-2. A/C Head Replacement

8-2-1. Replacement

※ Required tools:

Nut Driver (5.5m/m)(VFK1150)

Hex Driver (VFK1148)

Hex Wrench (VFK1190)

(Removal)

1. Remove the Cassette Cover and Left Side Panel..
2. Remove the Cassette Up Unit.
3. Loosen the **hex. screw (B)** and remove the **Nut (C)**. Pick up the Head Height Adjustment Spring and then remove the A/C Head Unit as shown in Figure 8-2-3.

Point: Memorize the height of Nut (C) before removing the Nut (C),

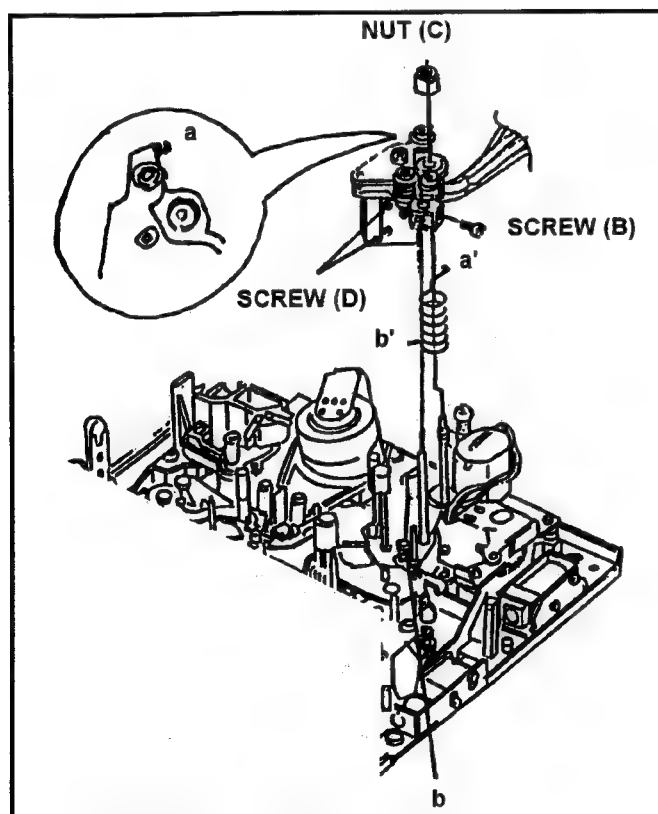


Fig. 8-2-3 Removal of A/C Head Unit

4. Remove the 2 screws (A). Disconnect the connector P1003 on the Rear Jack P.C.Board and P600 on the Servo P.C.Board, and then remove the A/C Head from the A/C Head Plate.

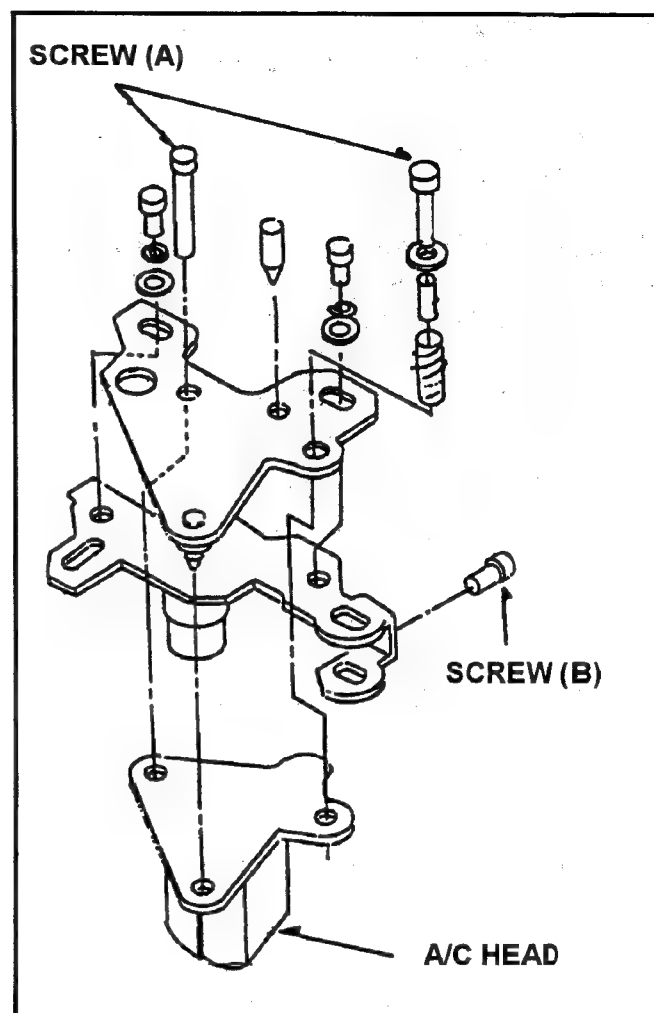


Fig. 8-2-1 Removal of A/C Head

5. Remove 2 screws (D) to remove the Shield Cover as shown in Figure 8-2-3.
6. Unsolder the lead wires one by one. (Don't unsolder all wires at the same time.)

(Installation)

1. Remove the Shield Case from the New A/C Head and solder the lead wires to New A/C Head (Refer to Figure 8-2-2).
2. Re-install the shield case to A/C Head.
3. Install the A/C Head to A/C Head Plate and tighten 2 screws (A) so that A/C Head is parallel to A/C Head Plate.
4. Install the A/C Head Unit.
5. Put on the Head Height Adjustment Spring and tighten the Nut (C).
6. Clean the surface of the A/C Head.

Note: After installing, Mechanical and Electrical Adjustments should be performed.

The hex screw (B) is kept loose until the A/C Head Height Adjustment is completed.

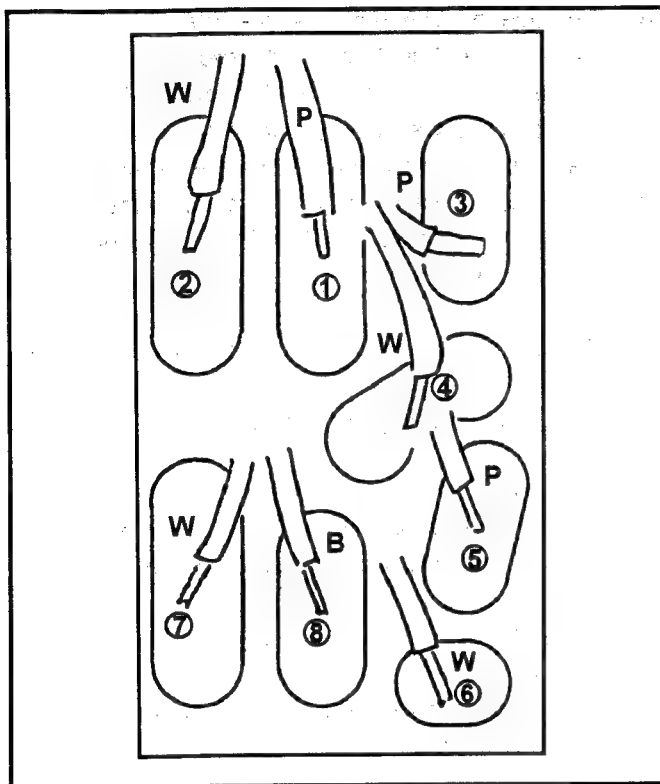
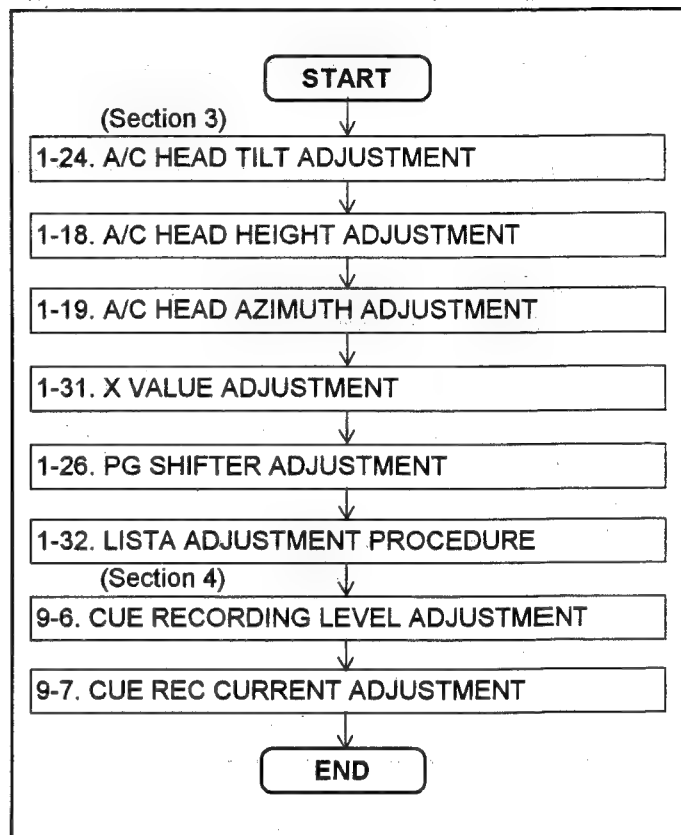


Fig. 8-2-2 Connection of A/C Head

A/C Head Side	Cable Color		Connector No.
1	PINK	YELLOW	P1003
2	WHITE		
3	PINK	RED	
4	WHITE		
5	PINK	GREEN	P600
6	WHITE		
7	WHITE	YELLOW	
8	BLACK		

8-2-2. Adjustment Flowchart After A/C Head Replacement

1. After replacing the A/C Head, perform the following steps.



8-3. Reel Table Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Press the iron core of Brake Solenoid to release the Reel Brake.
4. Pull up gently the Supply and Take up Reel Tables.

Note: Handling roughly damages bearings inside Reel Tables.

(Installation)

1. Install the Reel Tables according to the opposite procedures to removing.
2. After Installing, Main Brake Torque Confirmation (Refer to item 1-4 of Section 3) should be performed.

8-3-1. Supply Reel Rotor Unit Replacement

(Removal)

1. Remove Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.

3. Remove the connector P614 on the Servo P.C.board.
4. Remove the S5 Post (Refer to item 8-14).
5. Pull up the Arm Return Spring on the Connection Arm Angle Side.
6. Remove the Connection Arm Angle.
7. Remove the **Cut Washer (A) and (B)** to remove the Idler Arm Unit as shown in Figure 8-3-2.
8. Unscrew the **4 screws (C)** to remove the Supply Reel Rotor Unit as shown in Figure 8-3-2.
9. Unscrew the **2 screws (D)** to remove the S-Side M Stopper from Supply Reel Rotor Unit as shown in Figure 8-3-3.

CAUTION: Don't touch FG portion with the magnetized screw driver, when unscrewing the screw (D).

(Installation)

1. Install the new Supply Reel Rotor Unit according to the opposite procedures to removing.
2. Adjust the height of cassette height pin.
3. Adjust the Reel Torque Offset (Refer to item 7-1 of Section 3).
4. Confirm the tape tension on playback mode. (Refer to item 1-15.)

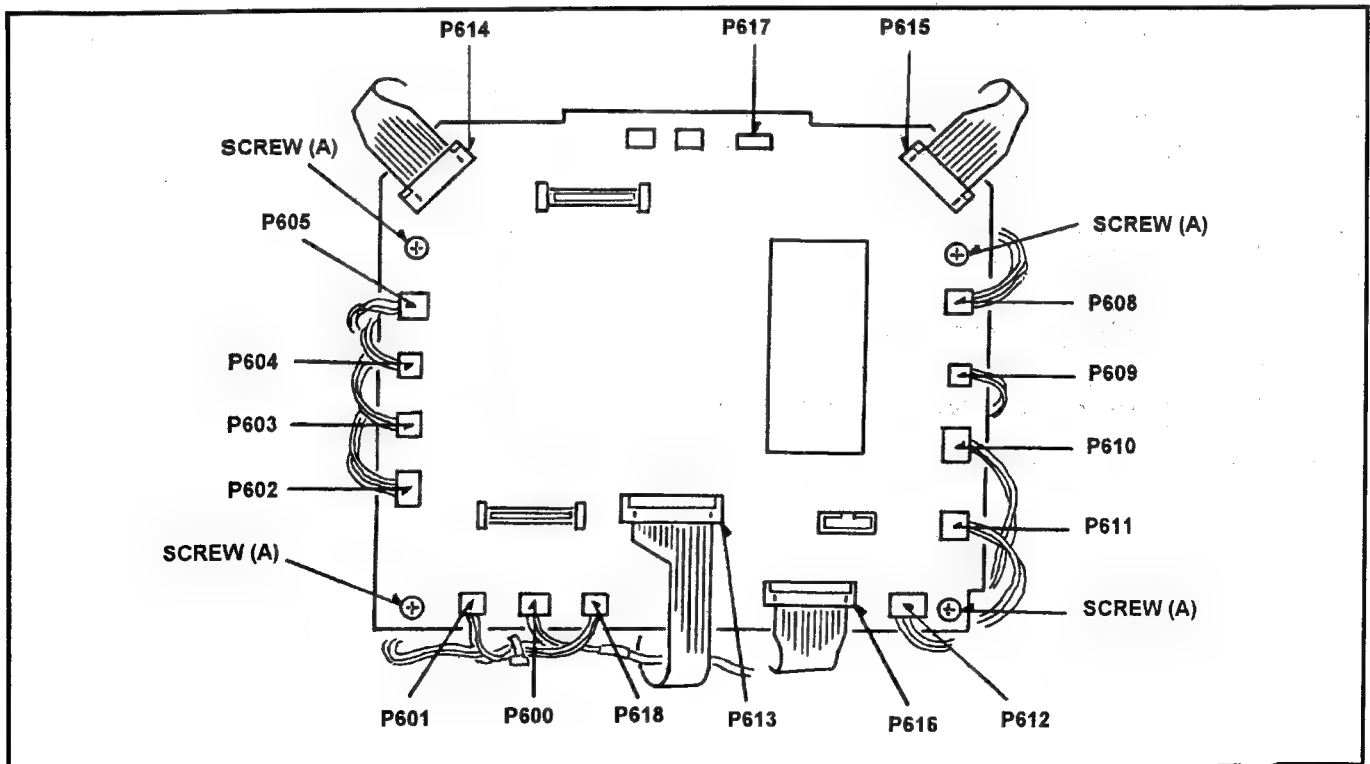


Fig. 8-3-1 Connection of Servo P.C.Board

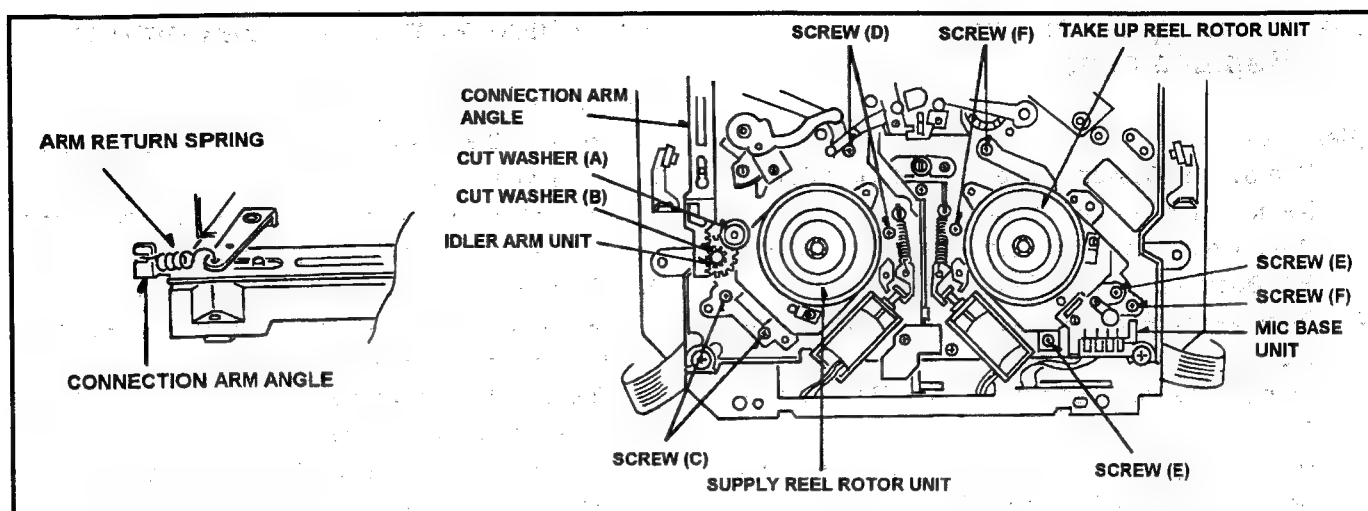


Fig. 8-3-2 Removal of Supply & Take Reel Rotor Unit

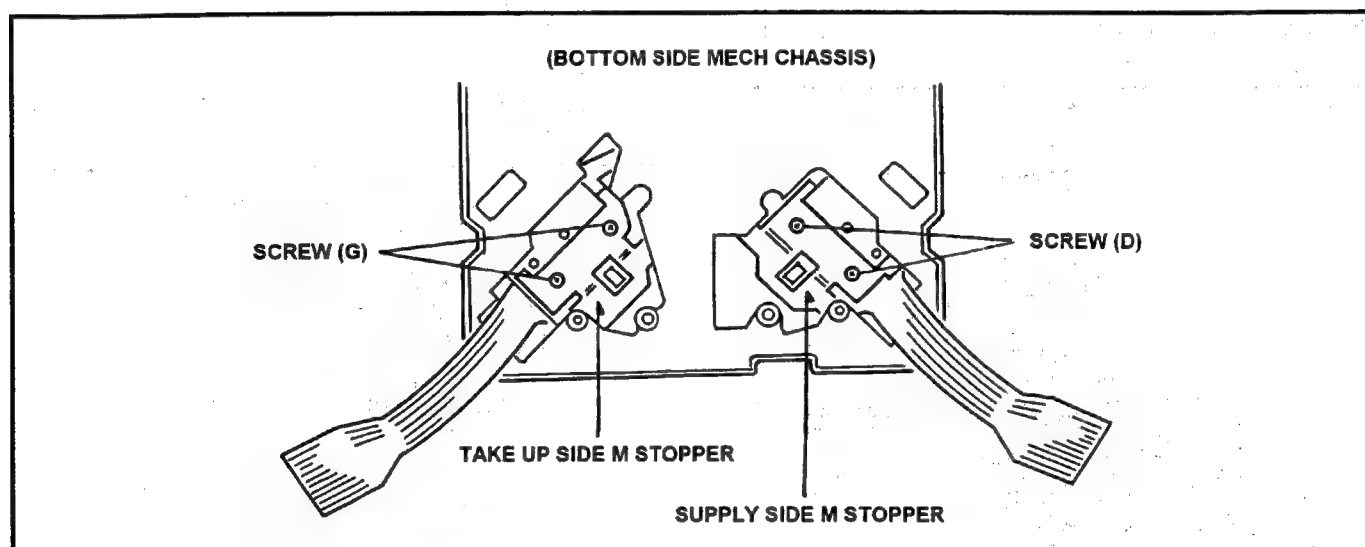


Fig. 8-3-3 Removal of Supply & Take Reel Rotor Unit

8-3-2. Take Up Reel Rotor Unit Replacement

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Remove the Mechanical Chassis Unit (Refer to item 7-6).
4. Disconnect the connector P615 on the Servo P.C.Board and unscrews the 2 screws (E), and then remove the MIC Base Unit.
5. Unscrew the 3 screws (F) to remove the Take Up Reel Rotor Unit as shown in Figure 8-3-2.
6. Unscrew the 2 screws (G) to remove the T-Side M Stopper from Take Up Reel Rotor Unit as shown in Figure 8-3-3.

(Installation)

1. Install the new Take Up Reel Rotor Unit according to the opposite procedures to removing.
2. Adjust the height of cassette height pin.
3. Adjust the Reel Torque Offset (Refer to item 7-1 of Section 3).
4. Confirm the tape tension on playback mode (Refer to item 1-15).

CAUTION: Don't touch FG portion with the magnetized screw driver when unscrewing the screw (D).

8-4. Loading Motor Unit Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel..
2. Remove the Cassette Up Unit.
3. Disconnect the **connector P611** on **Servo P.C.Board** as shown in Figure 8-3-1.
4. Remove the Pinch Solenoid Unit (Refer to item 8-9).
5. Remove the Pinch Solenoid Lever. (Refer to item 8-5).
6. Unscrew the **screw (B)** to remove the Emergency Shaft as shown in Figure 8-4-1.
7. Unscrew the **2 screws (C)** to remove the Loading Motor Neutral Unit as shown in Figure 8-4-1.
8. Unscrew the **2 screws (D)** to remove the Loading Motor Unit as shown in Figure 8-4-1.

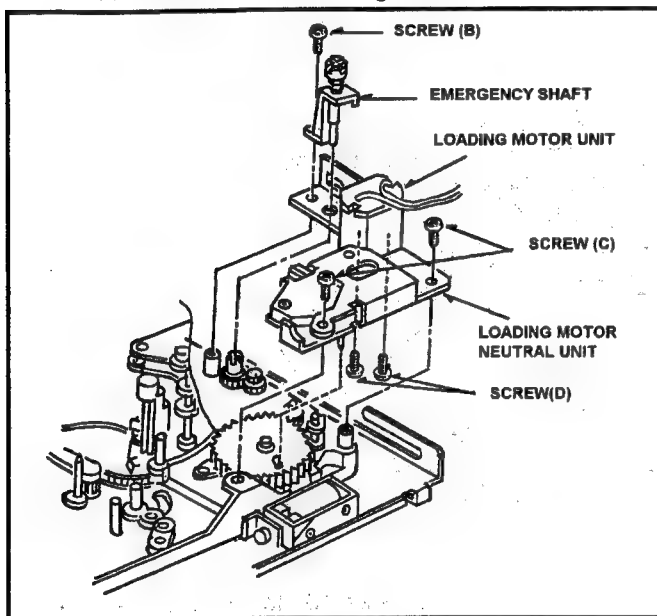


Fig. 8-4-1 Removal of Loading Motor Unit

(Installation)

1. Install the new Loading Motor Unit to Loading Motor Neutral Unit and tighten **2 screws (D)**.
2. Install the Loading Motor Neutral Unit and tighten the **2 screws (C)** so that the pin of Mode SW Unit matches groove position of main Cam Gear.
3. Install the Emergency Shaft and tighten the **screw (B)**.
4. Install the Pinch Solenoid Unit. After installing, Pinch Solenoid Position adjustment is required. (Refer to item 1-3 of Section 3).

8-5. Pinch Arm Unit Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Disconnect the **connector P610** on the **Servo P.C.Board** as shown in Figure 8-3-1.
4. Remove the Pinch Solenoid Unit (Refer to item 8-9, and pull up the Pinch Solenoid Lever as shown in Figure 8-5-1).
5. Remove the **cut washer (A)** to remove the Pinch Solenoid Lever as shown in Figure 8-5-1.
6. Remove the **cut washer (B)** to remove the Pinch Arm Unit as shown in Figure 8-5-1.

(Installation)

1. Install the new Pinch Arm Unit according to the opposite procedures to removing. Pinch Solenoid Position Adjustment is required. (Refer to item 1-3 of Section 3.)

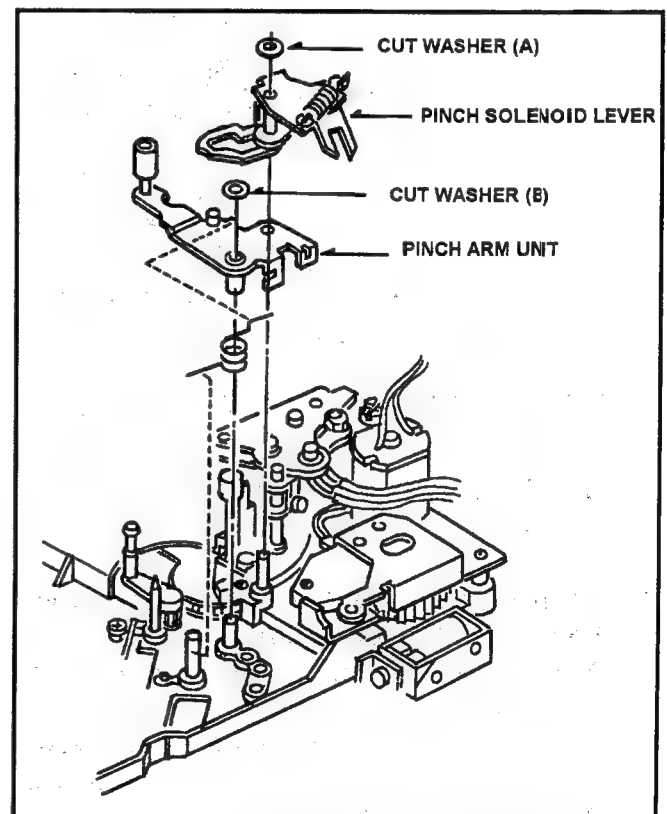


Fig. 8-5-1 Removal of Pinch Arm Unit

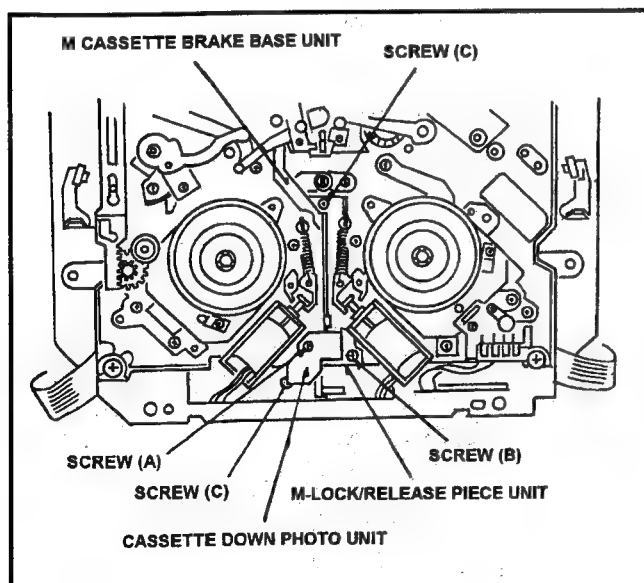
8-6. M Cassette Brake Base Unit Replacement

(Removal)

1. Remove the Cassette Cover and Remove the Left Side Panel.
2. Remove the Cassete Up Unit.
3. Remove the Mech Chassis Unit (Refer to item 7-6).
4. Disconnect the all connectors on Servo P.C.Board. Unscrew the 4 screws (A) to remove the Servo P.C.Board as shown in Figure 8-3-1.
5. Unscrew the screw (A) to remove the Cassette Down Photo Unit.
6. Unscrew the screw (B) to remove the M-Lock/Release Piece Unit.
7. Unscrew the 2 screws (C) to remove the M cassette Brake Base Unit. Then pick up the pin of Eject Arm Unit.

(Installation)

1. Install the new cassette Brake Base Unit according to the opposite procedures to removing.



8-7. Mode Select Switch Unit Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Disconnect the connector P612 on the Servo P.C.Board as shown as Figure 8-3-1.
4. Remove the Pinch Solenoid Unit and Loading Motor Neutral Unit (Refer to item 8-4).
5. Remove the screw (D) to remove the Mode Select Switch Unit from Loading Motor Neutral Unit as shown in Figure 8-7-1.

(Installation)

1. Install the New Mode Select Switch Unit according to the opposite procedures to removing. (Please refer to item. [8-4. Loading Motor Unit Replacement.])

Note: Confirm that the pin of Mode Switch Unit matches groove of Main Cam Gear.

2. After installing the Pinch Solenoid Unit, Pinch Solenoid Position adjustment is required (Refer to item 1-3 of Section 3).

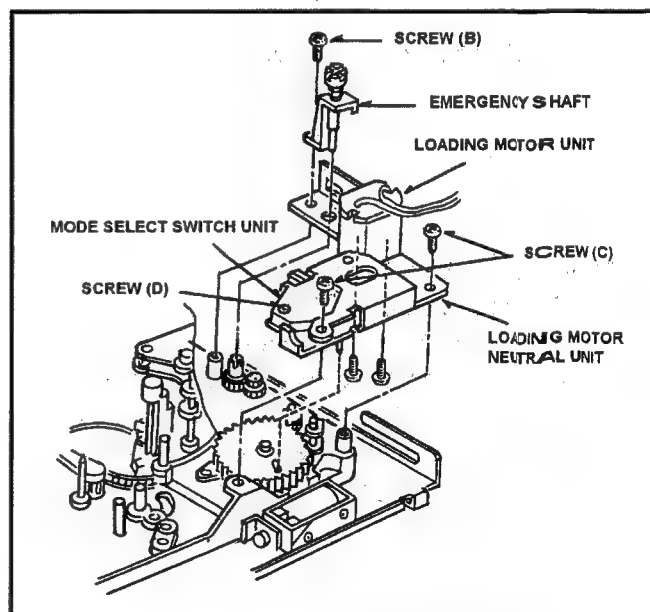


Fig. 8-7-1 Removal of Mode Select Switch Unit

8-8. Cleaning Arm Unit Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Unscrew the **2 screws (C)** to remove the BNC JACK P.C.Board as shown in Figure 8-8-3.
3. Unscrew the **2 screws (A)** to remove the T1 Guide.
4. Pick up the **tip portion (B)** of Cleaning Arm Unit and remove the spring from Cleaner Arm Unit. Then remove the Cleaning Arm Unit as shown in Figure 8-8-1.

(Installation)

1. Install the cleaning Arm Unit, then hang the spring on Cleaning Arm Unit.
2. Install the T1 Guide and tighten **2 screws (A)**.
3. Press the iron core of the Cleaner Solenoid and confirm that the Cleaner Roller is rotated when the cylinder is rotated by hand.
4. T1 Guide position adjustment should be performed.

8-8-1. T1 Guide Position Adjustment

Place the unit in Loading completion mode.

< How to Make the No Tape Loading >

- Set a black tube to TAPE LED sensor.
- Turn on the power and then the VTR begins loading without tape. And turn power to off.

1. Observe the **clearance (B)** between T1 Guide and T1 post as shown in Figure 6-8-3. And make sure that it is within **0.2 to 0.5mm**.
2. If not, loosen the **2 screws (A)** and adjust the position of T1 Guide by moving to arrow direction ($G \rightleftharpoons G$) so that the **clearance (B)** is within specification. And tighten the **2 screws (A)**.

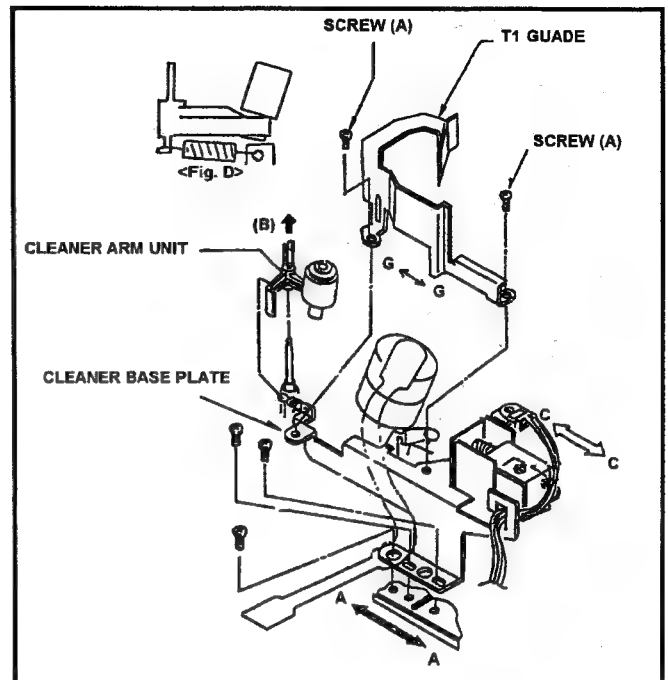


Fig. 8-8-1 Removal of Cleaner Roller Unit

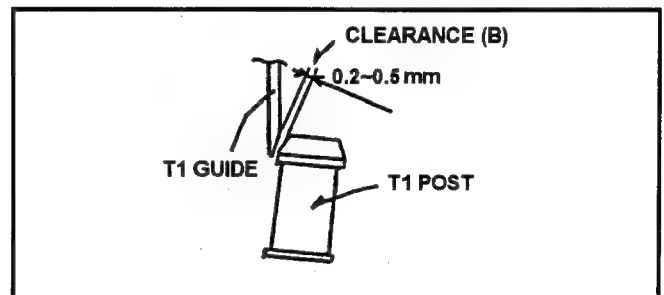


Fig. 8-8-2 Adjustment of T1 Guide

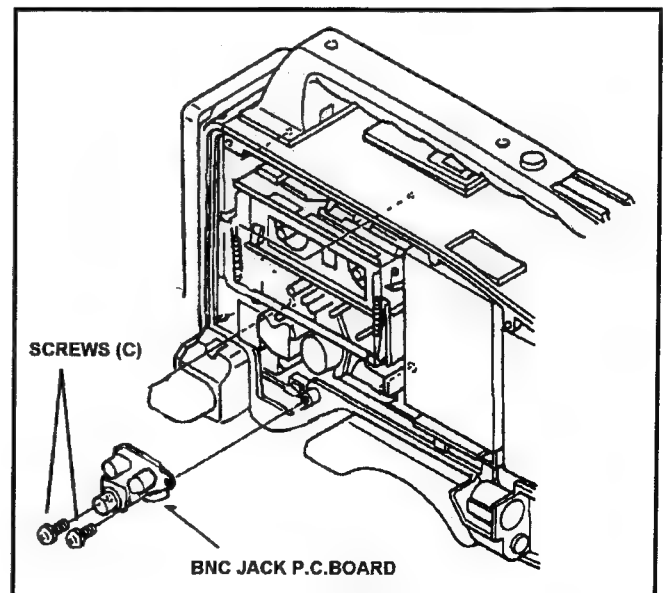


Fig. 8-8-3 Removal of BNC JACK P.C.Board

8-9. Pinch Solenoid Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Disconnect the **connector P610** on the **Servo P.C.Board** as shown in Figure 8-3-1.
4. Unscrew the **2 screws (A)** and remove the Pinch Solenoid Unit as shown in Figure 8-9-1.
5. Unscrew the **2 screws (B)** and remove the Pinch Solenoid Angle as shown in Figure 8-9-1.
6. Unscrew the **2 screws (C)** and remove the Pinch Solenoid from the Pinch Solenoid Base.

(Installation)

1. Install the new Pinch Solenoid according to the opposite procedures to removing.
2. After installing, Pinch Solenoid Position Adjustment is required. (Refer to item 1-3 of Section 3.)

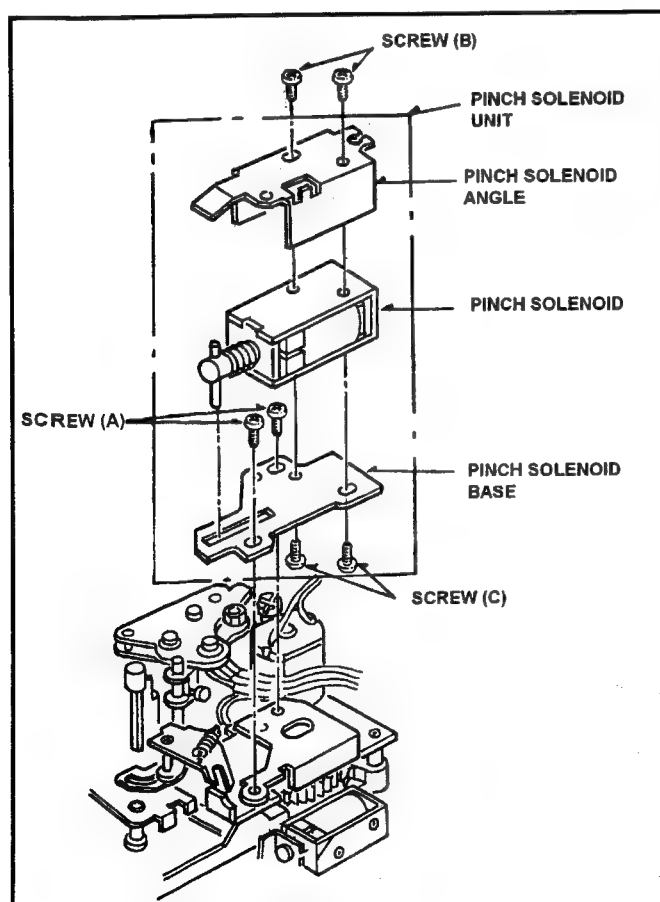


Fig. 8-9-1. Removal of Pinch Solenoid

8-10. MIC Base Unit Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Disconnect the **connector P607** on **Servo P.C.Board**.
4. Unscrew the **2 screws (A)** and remove the MIC Base Unit as shown in Figure 8-10-1.

(Installation)

1. Install the new MIC Base Unit according to the opposite procedures to removing.
2. Confirm that the M cassette touches to MIC Base Unit properly.

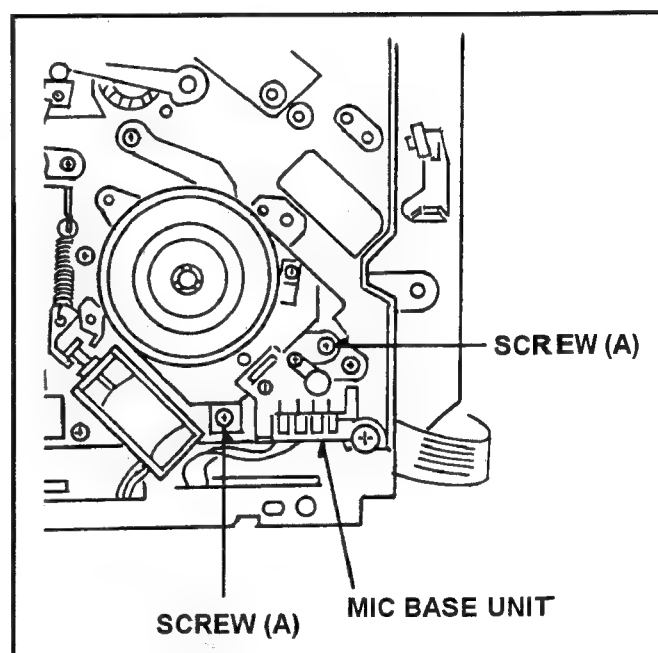


Fig. 8-10-1 Removal of MIC Base Unit

8-11. S1 Post Loading Arm Unit Replacement and Adjustment

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette up Unit.
3. Remove the S5 Post Base Unit (Refer to item 8-14).
4. Remove the Tension Arm Unit (Refer to item 8-15).
5. Unscrew the screw (A) and remove the S1 Post from Loading Rail as shown in Figure 8-11-1.
6. Remove the Cut Washer (B) and remove the S1 Loading Arm Unit as shown in Figure 8-11-1.

(Installation)

1. Install the new S1 Loading Arm Unit according to the opposite procedures to removing. Then S1 Post Loading Arm Unit Phase Adjustment should be performed as shown below.
2. After installing, confirm that the S1 Post moves smoothly on the Loading Rail.
3. Tension Arm (Refer to item 1-7 of section 3), Post Height Pre-Adjustment (Refer to item 1-5 of section 3) and Linearity Adjustment (Refer to item 1-13 of section 3 [Tape Path Adjustment Procedure]) should be performed.

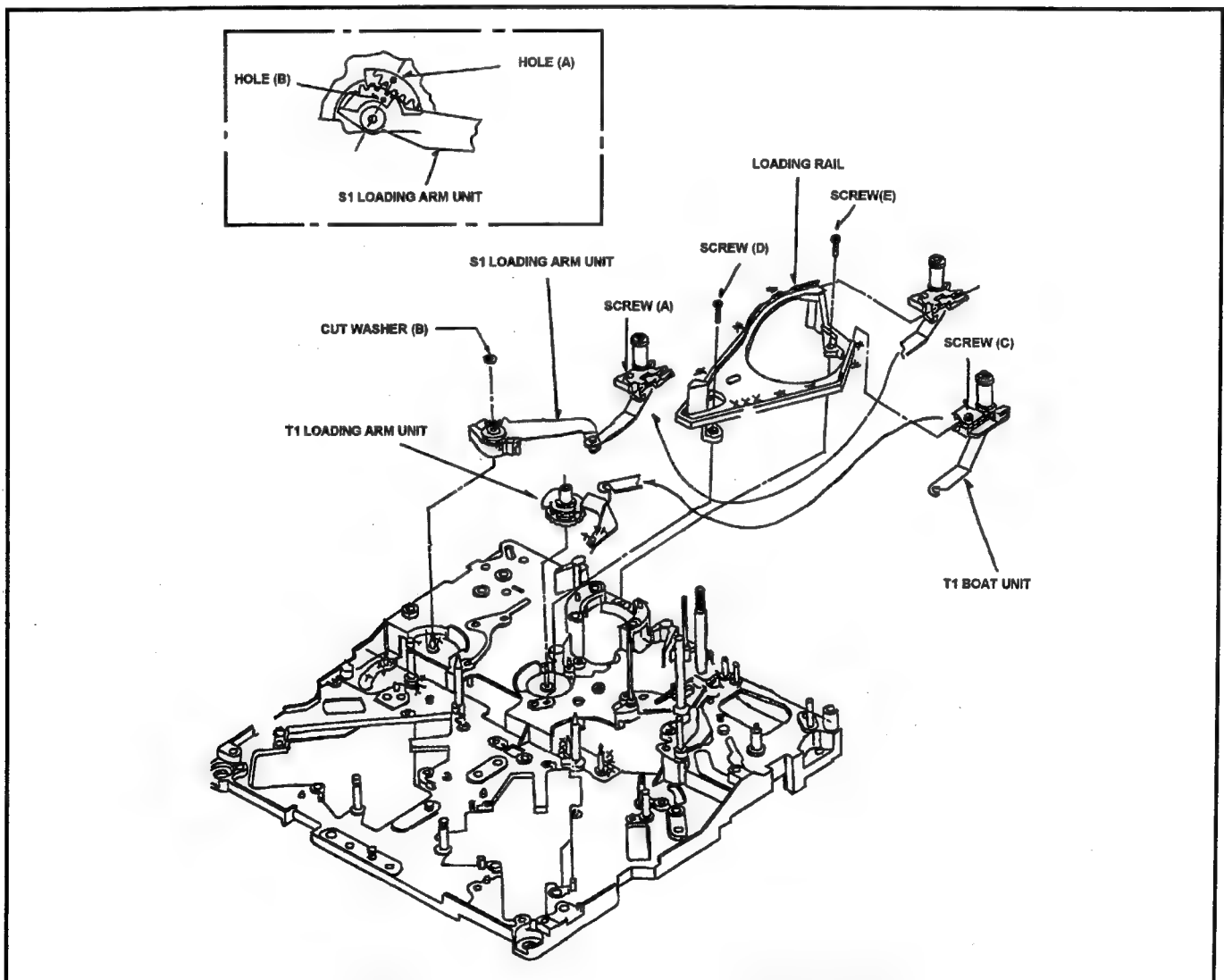


Fig. 8-11-1 Removal of S1 Post Loading Arm Unit

(Adjustment)

1. Adjust S1 Post Loading Arm Unit so that the hole (A) should match hole (B) as shown in Figure 8-11-1.

8-12. T1 Boat Unit Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Unscrew the screws (C), and remove the T1 Post from Loading Rail as shown in Figure 8-11-1.
4. Remove the T1 Boat Unit from T1 Loading Arm Unit as shown in Figure 8-11-1.

(Installation)

1. Install the new T1 Boat Unit according to the opposite procedures to removing.
2. After installing, confirm that the T1 Post moves smoothly on the Loading Rail.
3. Linearity adjustment (Refer to item 1-13 of section 3 [Tape Path Adjustment Procedure]) should be performed.

8-12-1. T1 Loading Arm Unit Replacement and Adjustment

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Remove the cylinder Unit (Refer to item 8-1).
4. Move the T1 Post to loading direction until the screw (D) can be removed as shown in Figure 8-11-1.
5. Unscrew the 2 screws (A) and (C), and then remove the S1 and T1 Post from Loading Rail as shown in Figure 8-11-1.
6. Unscrew the 2 screws (D) and (E), and then remove the Loading Rail as shown in Figure 8-11-1.
7. Remove the T1 Loading Arm Unit as shown in Figure 8-11-1.

(Installation)

1. Install the T1 Loading Arm Unit according to the opposite procedures to removing. Then Phase Adjustment should be performed as follows.

Note: This unit should be replaced simultaneously with Cylinder Unit. It makes Replacement of T1 Loading Arm Unit easier.

(Adjustment)

1. When installing the T1 Boat Unit, the hole (A) should match hole (B) as shown in Figure 8-12-1.
2. After installing, confirm that the S1 and T1 Post move smoothly on the Loading Rail.
3. Post Height Pre-adjustment (Refer to item 1-5 of section 3) and Linearity Adjustment (Refer to item 1-13 of section 3 [Tape Path Adjustment Procedure]) should be performed.

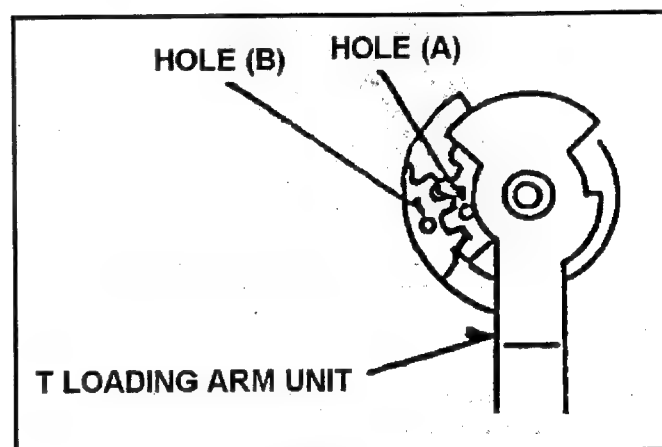


Fig. 8-12-1 Phase Adjustment of T1 Loading Arm Unit

8-13. Cleaner Solenoid Replacement and Adjustment

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Disconnect the connector P618 on the Servo P.C.Board.
4. Unscrew the 2 screws (A) and remove the Cleaner Solenoid Unit as shown in Figure 8-13-1.
5. Unscrew the 2 screws (B) and remove the Cleaner Solenoid as shown in Figure 6-1 5-1.

(Installation)

1. Install the new Cleaner Solenoid according to the opposite procedures to removing.
2. After installing, Cleaner Solenoid Position adjustment should be performed as follows.

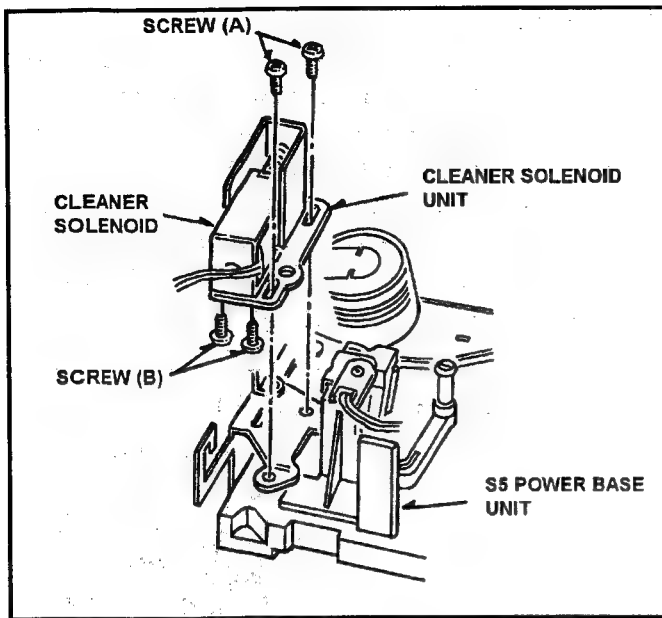


Fig. 8-13-1 Removal of Cleaner Solenoid

8-13-1. Cleaner Solenoid Position Adjustment

※ Required Tools : Eccentric Driver (VFK0357)

1. Press the iron core of Cleaner Solenoid.
2. Observe the **clearance (D)** between Cleaning Arm Unit and Cleaner Base Plate as shown in Figure 8-13-2. And make sure that it is **within 0.5 to 0.7mm**.
3. If not, loosen the 2 screws (A) and adjust the position of Cleaner Solenoid Unit by moving to arrow direction (C⇌C) with eccentric driver so that the **clearance (D)** is within specification. And tighten the 2 screws (A).
4. After adjustment, confirm as follows.
5. Press the iron core of Cleaner Solenoid to release, and then return the Cleaning Roller to original position.
6. Press the iron core of the Cleaner Solenoid and confirm that the Cleaner Roller is rotated when the cylinder is rotated by hand.

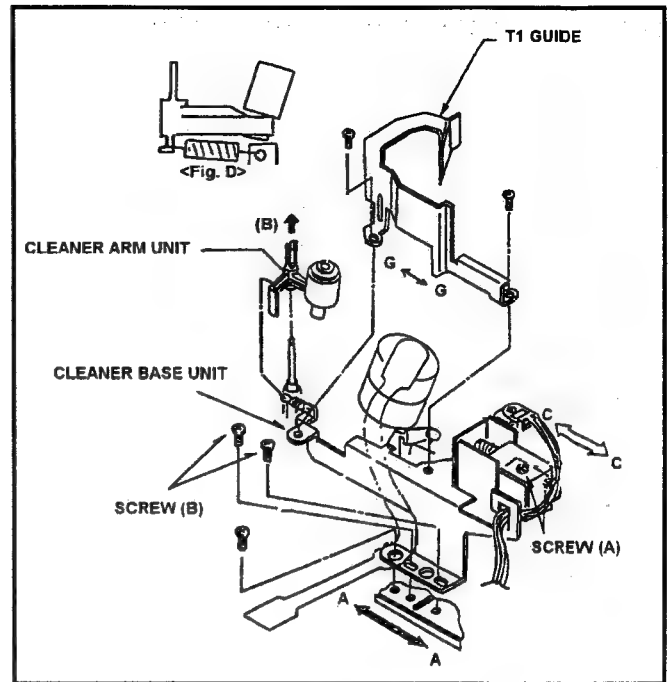


Fig. 8-13-4 Cleaner Solenoid Position Adjustment

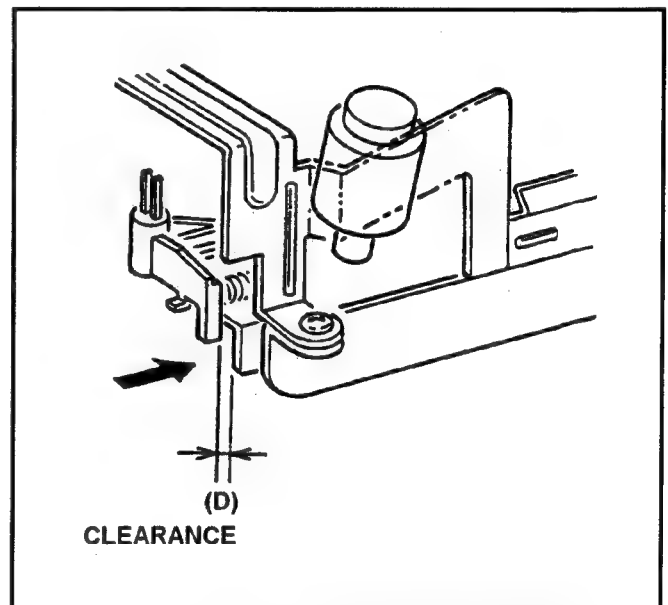


Fig. 8-13-3 Cleaner Solenoid Position Adjustment

Note: If removing the Cleaner Base Plate, Cleaner roller Position Adjustment should be performed.

8-13-2. Cleaner Roller Position Adjustment

※ Required Tools : Eccentric Driver (VFK0357)

1. Observe the **clearance (A)** between Cleaner Roller and Cylinder Unit as shown in Figure 8-13-3. And make sure that it is within 1.0 to 1.2mm.
2. If not, loosen the **2 screws (B)** and adjust the position of Cleaner Base Plate by moving to arrow direction ($A \rightleftharpoons A$) with the Eccentric Driver so that the **clearance (A)** is within specification. And tighten the **2 screws (B)**.

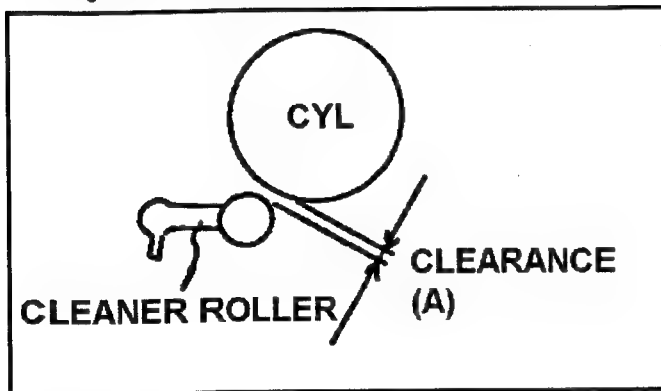


Fig. 8-13-4 Cleaner Roller Position Adjustment

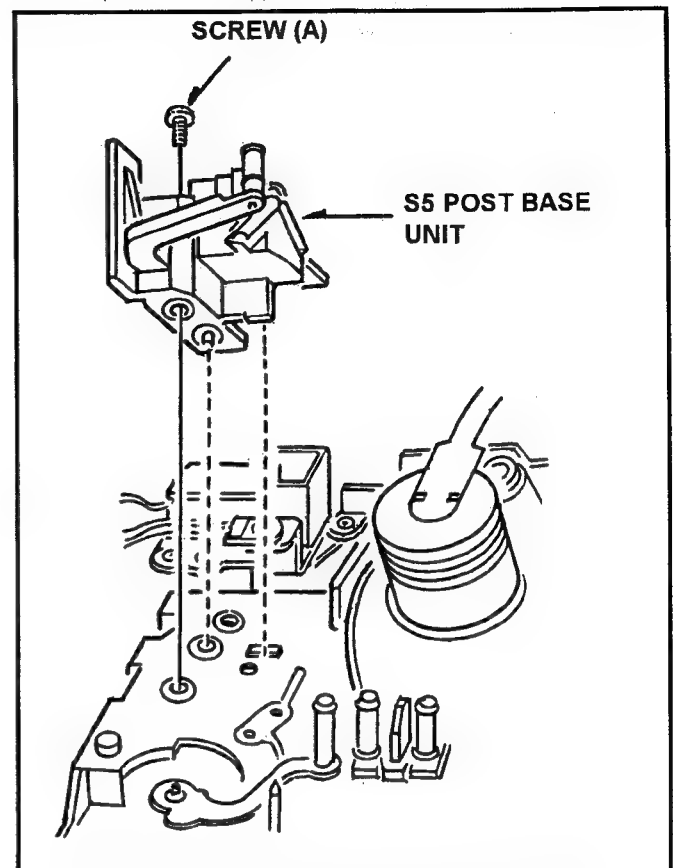


Fig. 8-14-1 Removal of S5 Post Base Unit

8-14. S5 Post Base Unit Replacement

(Removal)

1. Remove the Cassette Up Unit
2. Unscrew the **screw (A)** and remove the S5 Post Base Unit as shown in Figure 8-14-1.

(Installation)

1. Install the S5 post Base Unit according to the opposite procedures to removing.
2. After installing, Post Height Pre-adjustment (Refer to item 1-5 of section 3) and Linearity Adjustment (Refer to item 1-13 of section 3 [Tape Path Adjustment Procedure]) should be performed.

8-15. Tension Arm Unit Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Remove the **Cut Washer (A)** and pick up the Tension Regi Spring Then remove the Tension Arm Unit as shown in Figure 8-15-1.

(Installation)

1. Install the new Tension Arm Unit according to the opposite procedures to removing.
2. After installing, Tension Arm Adjustment should be performed as follows.

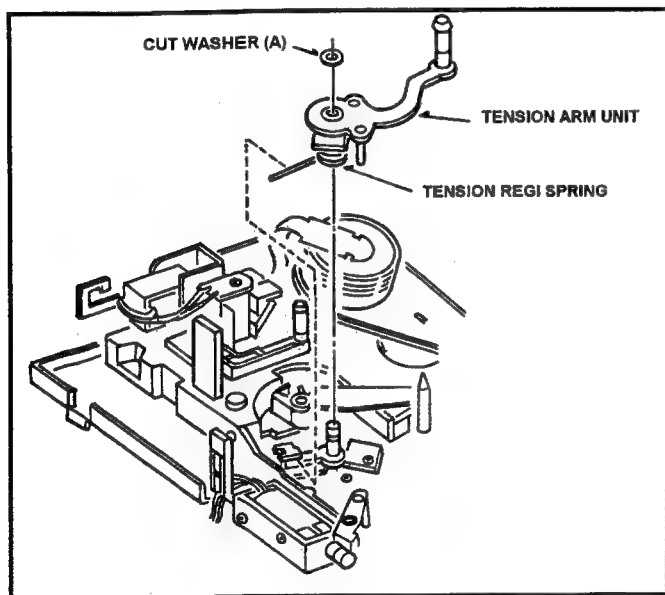
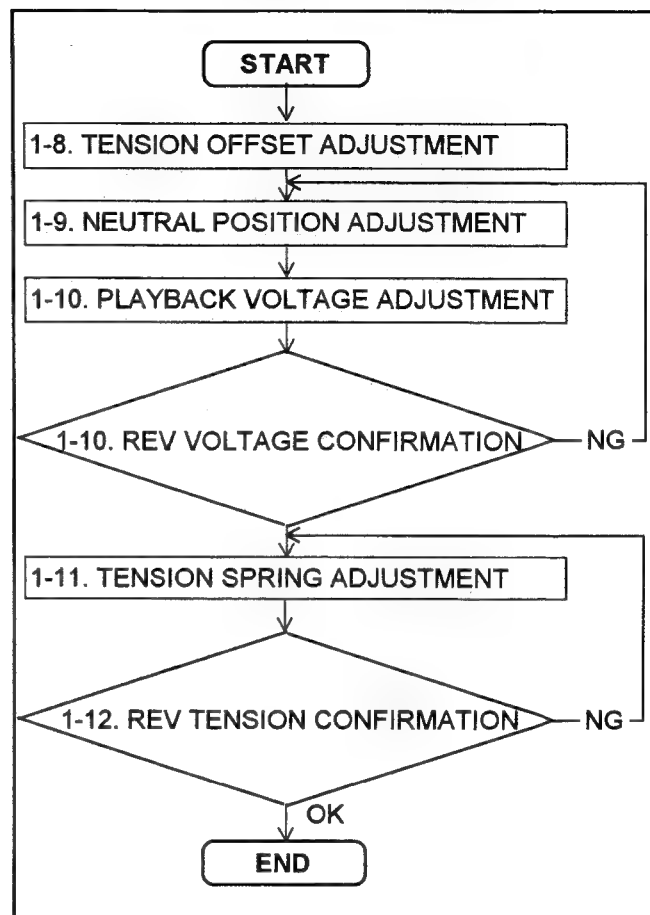


Fig. 8-15-1 Removal of Tension Arm Unit

Tension Arm Adjustment Flowchart



8-16. Main Cam Gear Replacement

(Removal)

1. Remove the Cassette Cover and Left Side Panel.
2. Remove the Cassette Up Unit.
3. Remove the Pinch Solenoid Unit (Refer to item 8-5) and Loading Motor Neutral Unit (Refer to item 8-4).
4. Remove the Main Cam Gear as shown in Figure 8-16-1.

(Installation)

1. Install the Main Cam Gear so that the pin of Main Cam Arm Unit (※) matches the groove position of Main Cam Gear as shown in Figure 8-16-1.
2. Follow the opposite procedures to removing.
3. After installing, Pinch Solenoid Position Adjustment is required (Refer to item 1-4 of section 3).

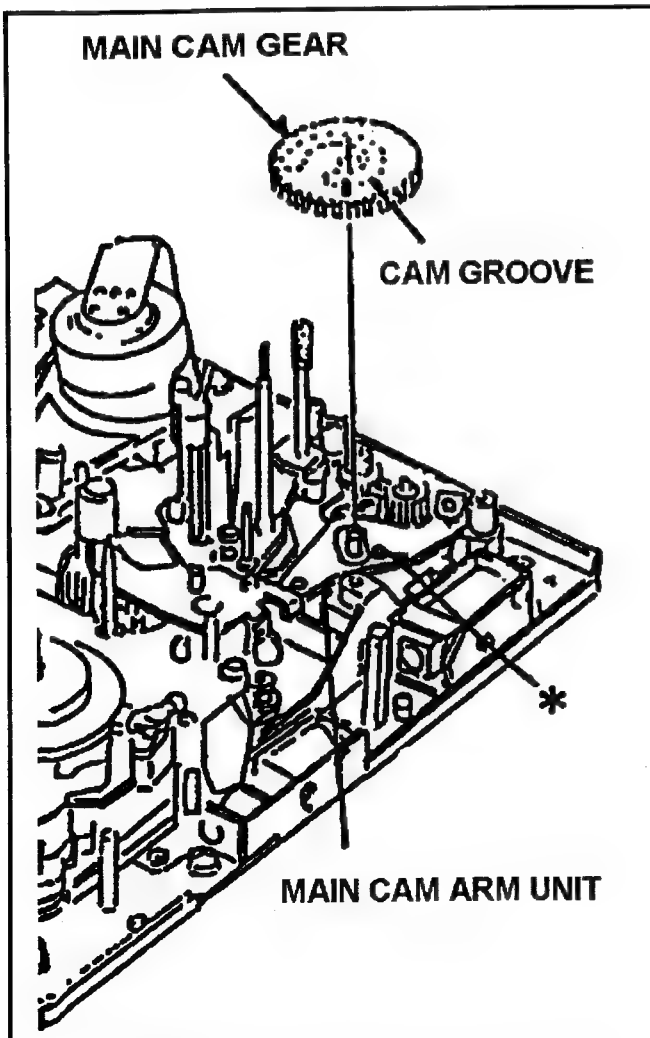


Fig. 8-16-1 Removal of Main Cam Gear

8-17. T4 Post Phase Adjustment

1. Confirm that the hole (B) of T4 Connector Gear was matched to hole of T4 Post as shown in figure 8-17-1.
2. Confirm the relation between portion (C) of T4 Connector Gear and hole (A) as shown in Figure 8-17-1.

Note: This confirmation should be performed on unloading condition.

3. If not, adjust the phase of T4 post follow the above procedure.

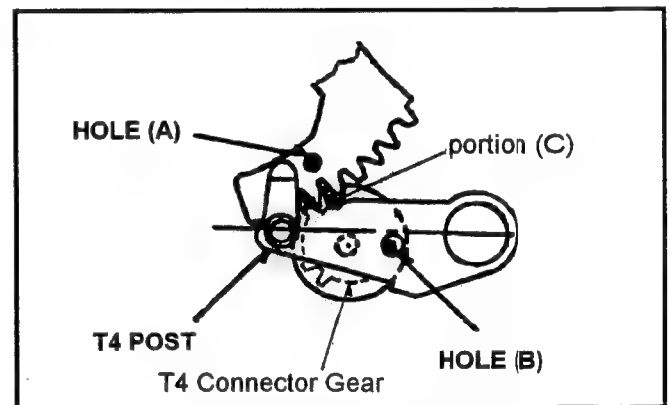
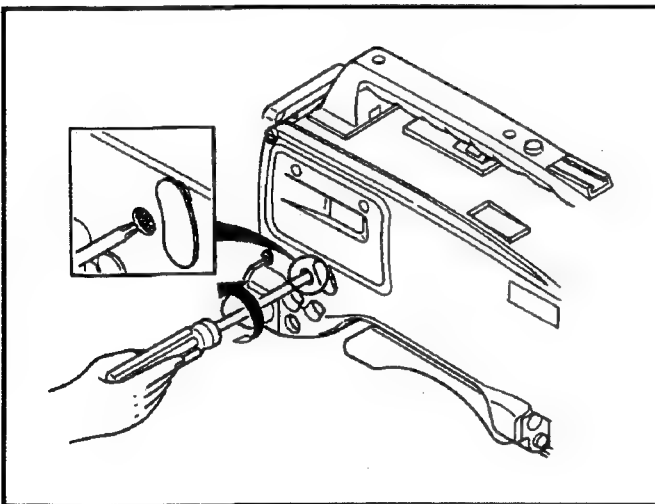


Fig. 8-17-1 Phase of T4 Post

9. Emergency Eject

If the cassette tape cannot be ejected with pressing EJECT button or the cassette tape may be damaged by ejecting it, the cassette tape should be ejected out by the following steps.

1. Turn the power off.
2. Open the rubber cap above the GEN LOCK IN connector. Push in and rotate the red screw counterclockwise.
3. The tape is unloaded with click.
4. Continue until the cassette tape is ejected.

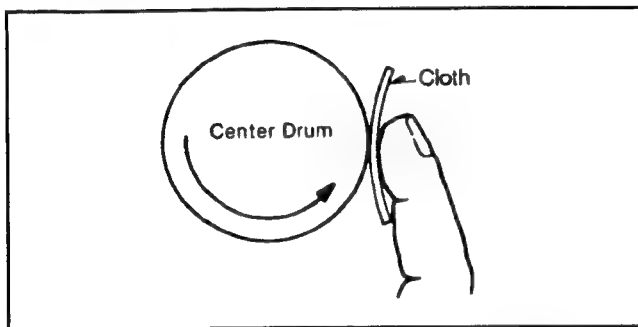


10. Cleaning Procedures

Make sure the power is OFF before cleaning. Use ethanol (more than 99%) as cleaning liquid.

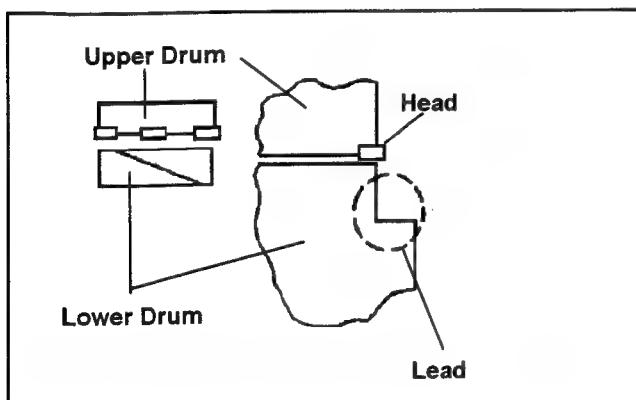
10-1. Cleaning of Head Chips : (Daily)

Clean heads by applying even pressure and rotating cylinder a few times. Never wipe in up and down motion. Never touch a cylinder by naked hand. First wipe with a cloth soaked by cleaning liquid. Then wipe with dry cloth.



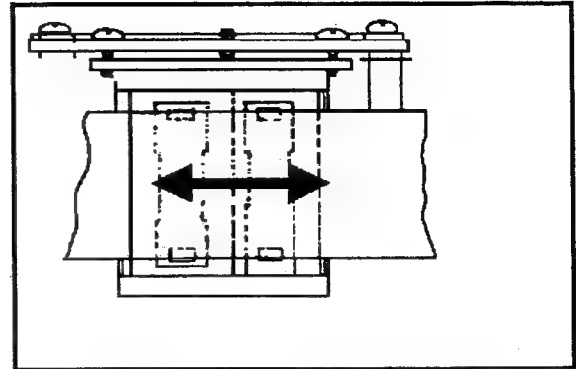
10-2. Cleaning of Drum Lead : (Weekly)

Be careful not to touch a head chip. Clean the drum lead with a pick.



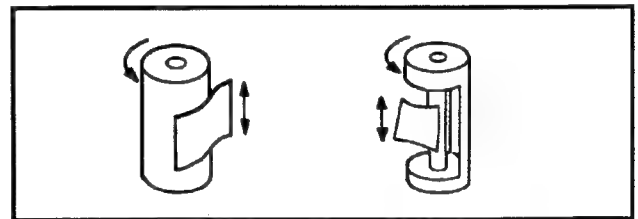
10-3. Cleaning of A/C Head : (Weekly)

Wipe the A/C head with a cloth soaked by cleaning liquid. Wipe again with a dry cloth.



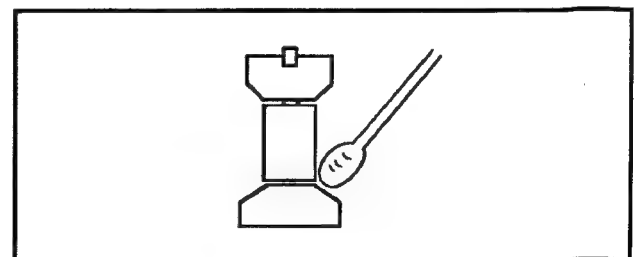
10-4. Cleaning of Pinch Roller and Capstan : (Weekly)

Wipe the Pinch Roller and Capstan with a cloth soaked by cleaning liquid.



10-5. Cleaning of Post : (Weekly)

Wind a cloth on a pick. Wipe each post dry with that pick. Wipe again with a dry cloth. For metal posts wipe with cleaning liquid. Then wipe dry again.



11. Auto off Information

Error No.	NG part	Detected Condition	Check
04	Pinch Solenoid Drive. Reel Brake Solenoid Drive.	Drive current is supplied to solenoids more than 5 seconds.	† Drive circuits of S* or T* Brake Solenoids and Pinch Solenoid. † P610-#1 and #3, P605, P608, IC501-#99
28	Cleaner Solenoid Drive	Drive current is supplied to solenoid more than 30 seconds.	† Drive circuit of Cleaner Solenoid. † IC501-#98
0B	Supply Reel	The condition that the amount of tape running is less than one-eighth of specification lasts more than 5 seconds.	† Reel motor doesn't rotate.→Drive circuit: P614(S*): P615(T*).
0C	Take-up Reel		† Reel brake isn't released.→Drive circuit: P605(S*): P608(T*).
			† Cassette is not loaded correctly on a reel. † Tape is stucked to drum.
0D	Capstan	The condition that FG frequency is less than half or more than twice of specification lasts more than 1.5 seconds.	† Capstan doesn't rotate.→Drive circuit: P616 † No copstan FG.→P616-#1 and #3.
0E	Cylinder	The condition that FG frequency is less than half or more than twice of specification lasts more than 3 seconds, even after cylinder has rotated more than 2 seconds.	† Cylinder doesn't rotate.→Drive circuit: P613 † No cylinder FG.→P613-#9.
0F	Loading	Loading or Unloading is not completed less than 10 seconds.	† Loading motor doesn't rotate. →Drive voltage : P611 † Take-up reel torque is over specification.

Note : Connectors and ICs are located on Servo board.

S* : Supply Reel

T* : Take-up Reel

: Pin No.

SECTION 3

MECHANICAL ADJUSTMENTS

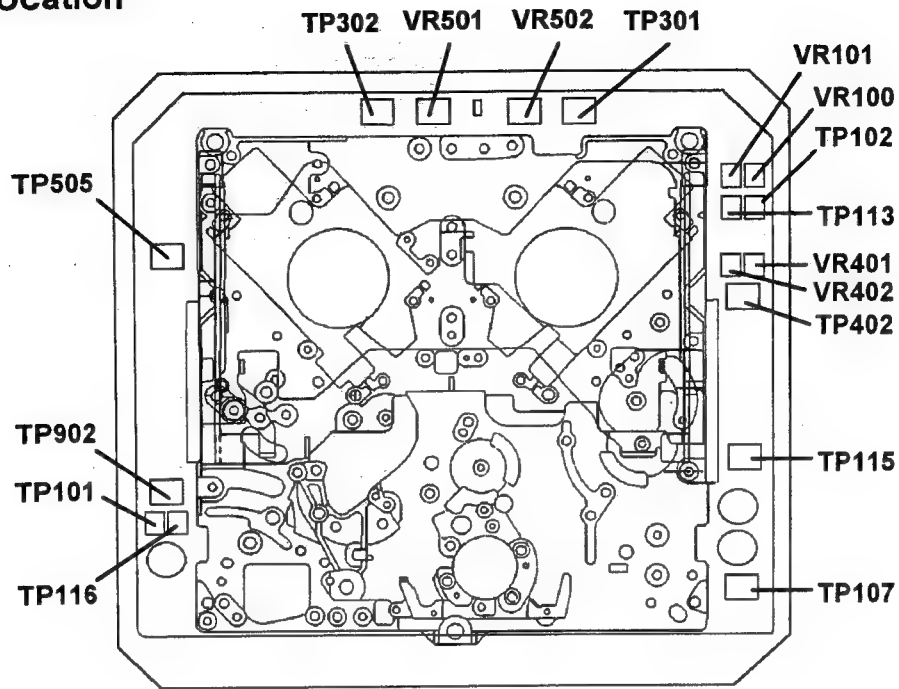
CONTENTS

1 . Mechanical Adjustment 3 — 1

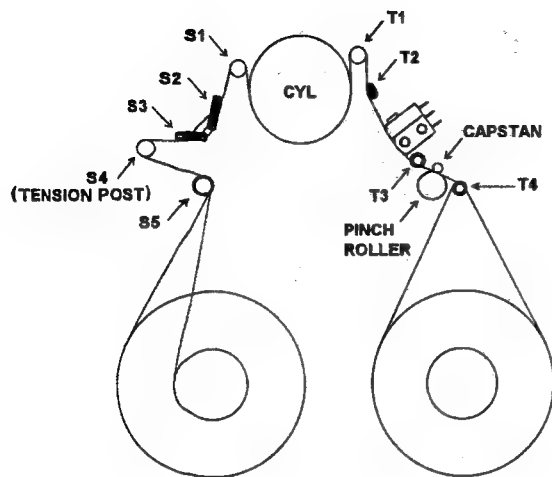
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1. Mechanical Adjustment

TP & VR location



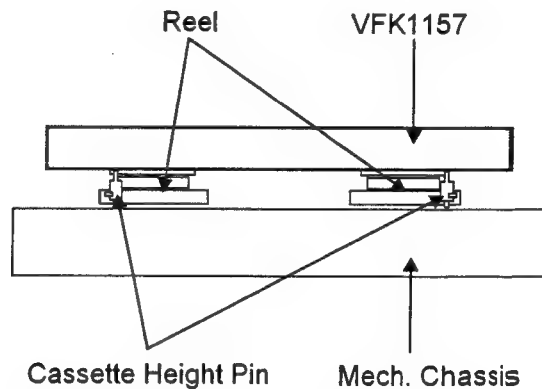
1-1. Name of tape transportation



1-2. Cassette Height Pin Adjustment

SPEC.	No clearance between VFK1157 and cassette height pins.
ADJUST	Cassette Height Pin
MODE	EJECT
M.EQ	VFK1157, VFK1179(0.71mm hex. driver)

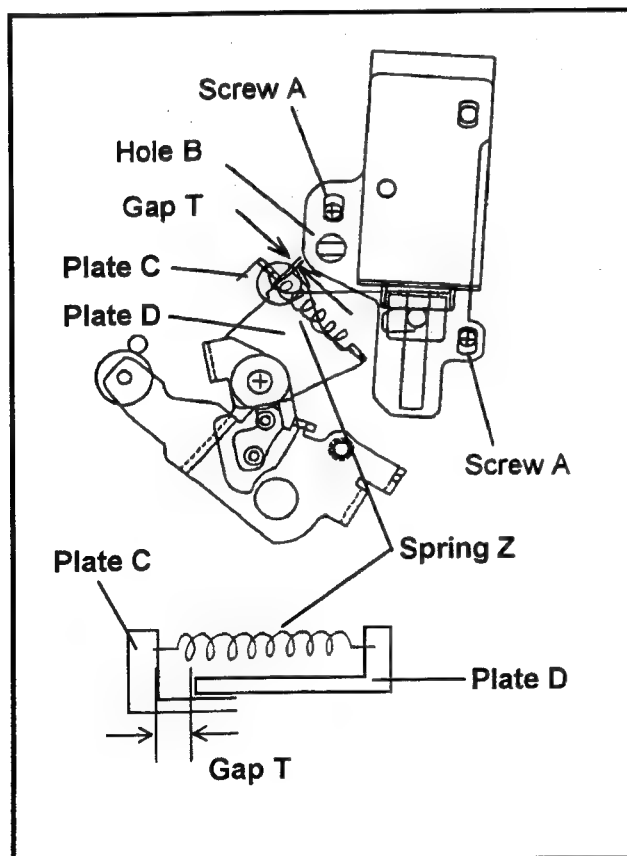
1. Remove Mech. Chassis Unit.
2. Remove Cassette Up Unit.
3. Put Mech. Neutral Plate on Reel Table.
4. Confirm no clearance between Mech. Neutral Plate and both Cassette Height Pins.
5. If clearance is there, loosen hex. screws of both cassette height pins after melting grew.
6. Cassette Height Pins reach Mech. Neutral Plate by themselves.
7. Tighten hex.screws and fix them with grew.



1-3. Pinch Solenoid Adjustment

SPEC.	T = 0.3mm
TEST	Gap T
ADJUST	Screw C, Hole B
MODE	Eject(Power OFF)
TOOL	VFK0357

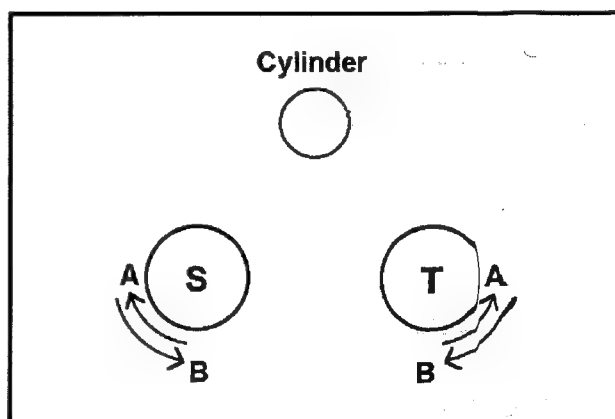
1. Confirm the power off.
2. Push the pinch roller by hand to be close to capstan.
3. Push the pinch solenoid by hand so that the pinch roller contacts capstan.
4. Loosen the two screws A.
5. Adjust the hole B so that gap T is within specification.
6. Tighten the two screws A.



1-4. Main Brake Torque Confirmation

SPEC.	Direction A : more than 80g Direction B : more than 15g
TEST	S Reel, T Reel
MODE	Eject(Power OFF)
TOOL	VFK71, VFK1191, VFK1152

1. Confirm the power off.
2. Remove the Cassette Up Unit.
3. Install the adapter(VFK1152) to the torque gauge (VFK71).
4. Put the torque gauge on S Reel.
5. Turn the torque gauge to direction A until S Reel slips against brake.
6. Confirm the torque is within specification.
7. Put the torque gauge on T Reel.
8. Turn the torque gauge to direction A until T Reel slips against brake.
9. Confirm the torque is within specification.
10. Install the adapter(VFK1152) to the torque gauge (VFK1191).
11. Put the torque gauge on S Reel.
12. Turn the torque gauge to direction B until S Reel slips against brake.
13. Confirm the torque is within specification.
14. Put the torque gauge on T Reel.
15. Turn the torque gauge to direction B until T Reel slips against brake.
16. Confirm the torque is within specification.



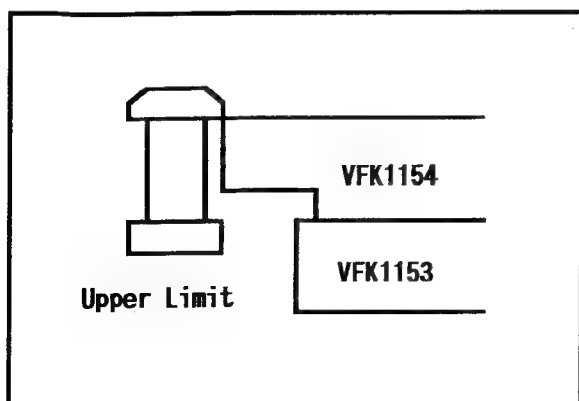
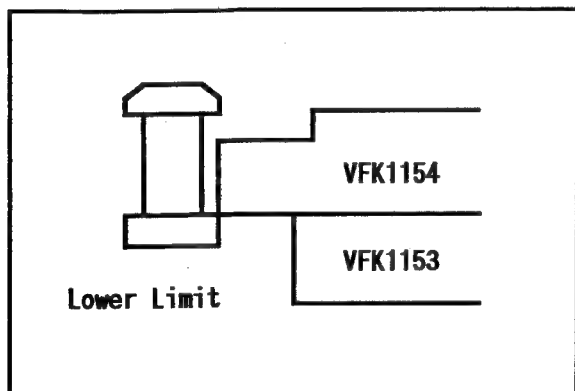
1-5. Post Height Preadjustment

Mode	EJECT (Power OFF)
Tool	VFK1153, VFK1154

1. Turn the power OFF and then set the tube* to cover the sensor LED and place the unit in no tape loading mode.
2. Install the Mech. Neutral Plate and adjust each post height as shown in figure.

Note. Lower* : Turn S4 and S5 posts 1 round more counterclockwise from lower limit position.

Post	Limit	Post Driver
S4	Lower*	VFK1149
S5	Lower*	VFK1149
T3	Lower	VFK1151 (2.5 mm Nut Driver)
T4	Lower	VFK1151 (2.5 mm Nut Driver)



1-6. Reel Torque Adjustment

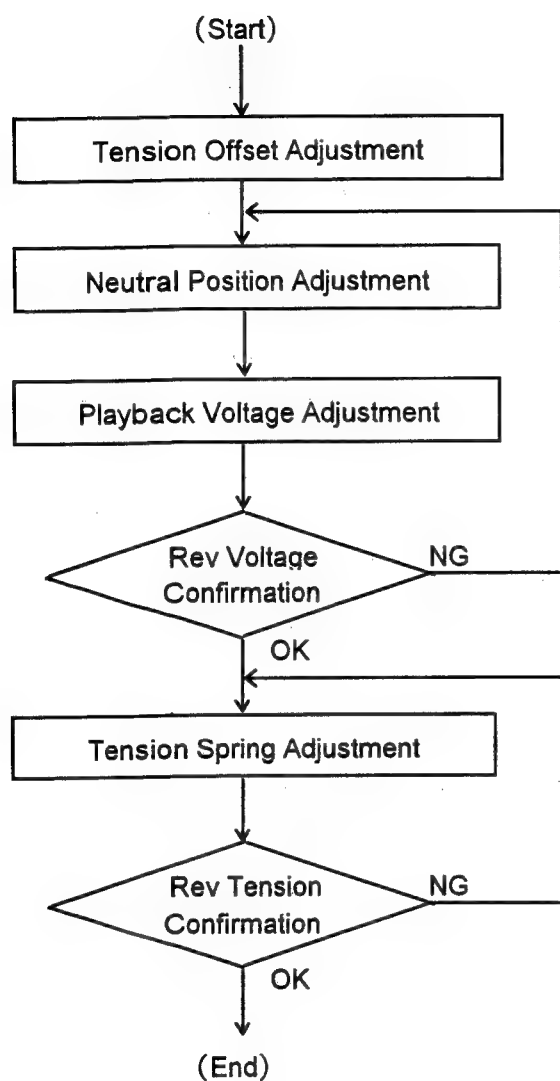
BOARD	Servo
SPEC.	20±2mV
TEST	TP301(S), TP302(T), TG300 (GND)
ADJUST	VR501(T), VR502(S)
MODE	PLAY
M.EQ	Digital Volt Meter

1. Confirm the power off and make a short-circuit between TP116 and TP505.
2. Turn the power ON and then set the tube* to cover the sensor LED and place the unit in no tape loading mode.
3. Hold the S-Reel by hand and press the PLAY key.
4. Adjust the VR502 so that the TP301(for S Reel) is within specification.
5. Hold the T-Reel by hand and press the PLAY key.
6. Adjust the VR501 so that the TP302(for T Reel) is within specification.
7. Make a open-circuit between TP116 and TP505.

Note.

1. Make a tube* by yourself.

1-7. Tension Adjustment Flowchart



1-8. Tension Offset Adjustment

BOARD	Servo
SPEC.	$2.5 \pm 0.05V$
TEST	TP402
ADJUST	VR402
MODE	EJECT
M.EQ	Digital Volt Meter

1. Adjust the **VR402** so that the DC voltage at **TP402** is within specification.

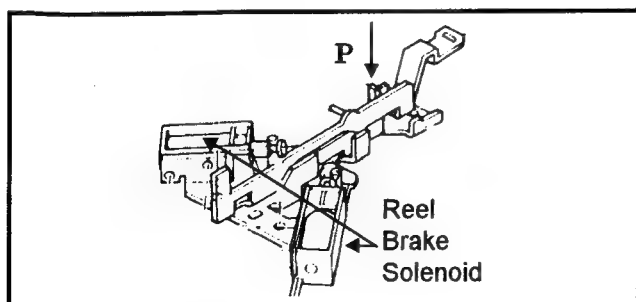
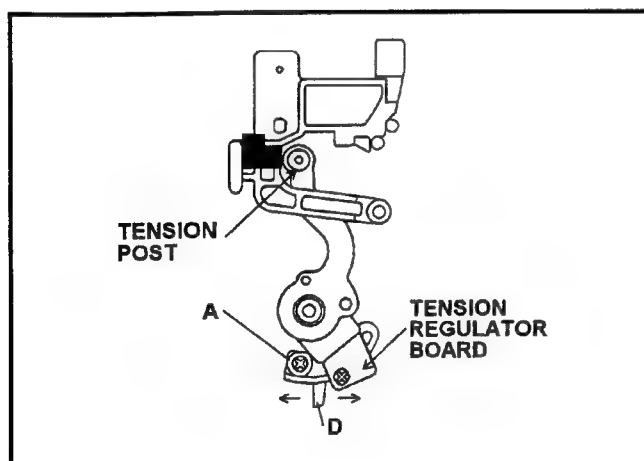
1-9. Neutral Position Adjustment

BOARD	Servo
SPEC.	$2.5 \pm 0.1V$
TEST	TP402
ADJUST	Sensor
MODE	STOP
M.EQ	Digital Volt Meter, VFK1208

1. Remove the cassette up unit.
2. Set the tube* to cover the sensor LED and press the lever P to place the unit in no tape loading mode.
3. Install the black spacer with hole(VFK1208) as shown in figure. Adjust the sensor position so that the TP402 voltage is within specification. To adjust, loosen the screw A and adjust the lever D.

Note.

1. Make a tube* by yourself.



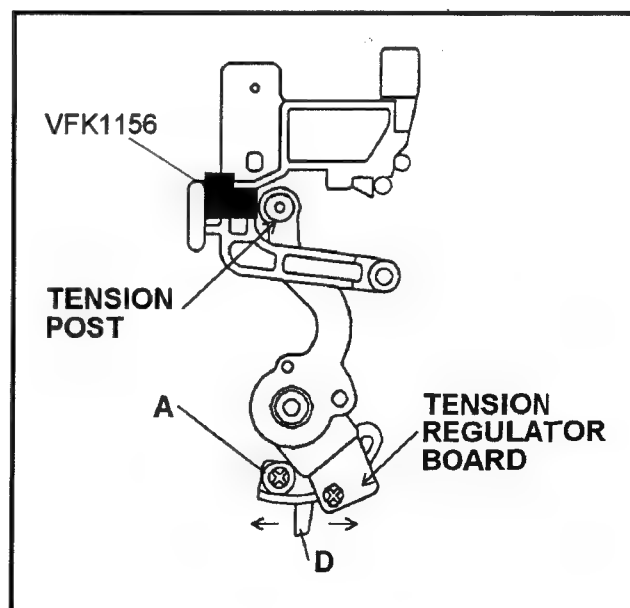
1-10. Play & Rev Tension Adjustment

BOARD	Servo
SPEC.	(PLAY) $3.8 \pm 0.05V$ (REV) $1.2 \pm 0.3V$
TEST	TP402
ADJUST	VR401
MODE	STOP
M.EQ	Digital Volt Meter, VFK1156, VFK1155

1. Set the tube* to cover the sensor LED and place the unit in no tape loading mode.
2. Install the black spacer(VFK1156) as shown in figure. Adjust the VR401 so that the TP402 voltage is within specification(PLAY). To adjust, loosen the screw A and adjust the lever D.
3. Install the gold spacer(VFK1155) instead of the black one. Confirm that the TP402 voltage is within specification(REV).

Note.

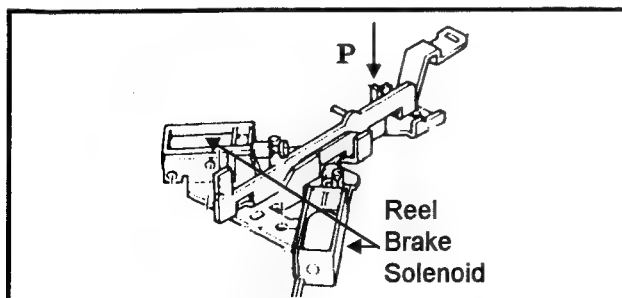
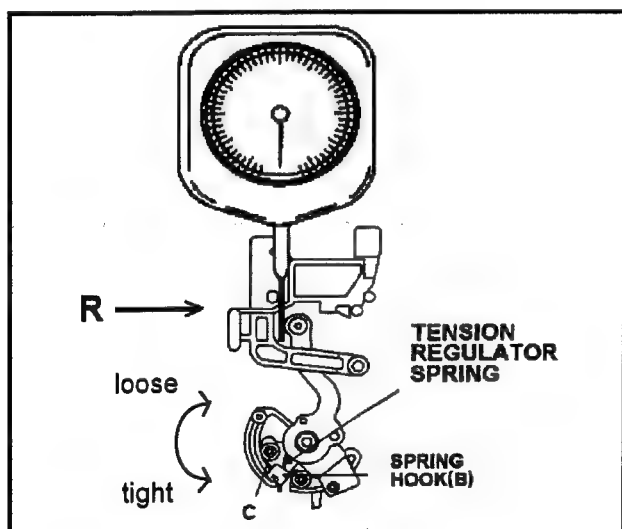
1. Make a tube* by yourself.
2. In case that it is impossible to adjust within specification, readjust from Neutral Position Adjustment.



1-11. Tension Spring Adjustment

BOARD	Servo
SPEC.	11 ± 1 g
TEST	TP402
ADJUST	Spring hook(B)
MODE	STOP
M.EQ	Digital Volt Meter VFK1188 (30g Dial Tension Gauge)

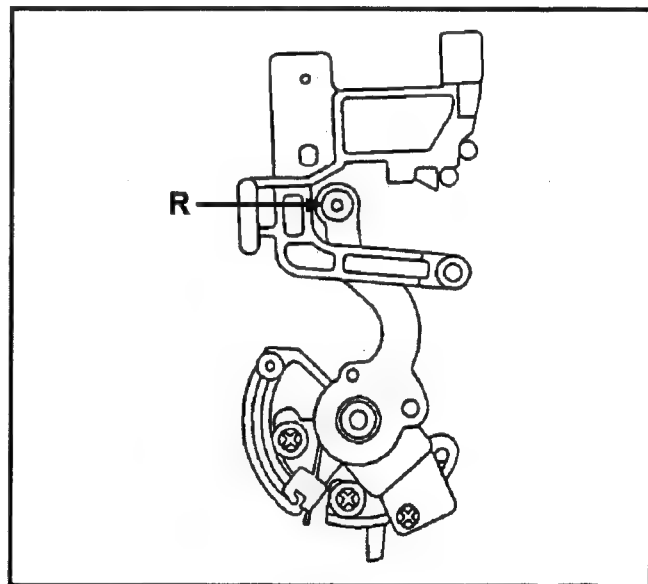
1. Remove the cassette up unit.
2. Set the tube* to cover the sensor LED and press the lever **P** to place the unit in no tape loading mode.
3. Insert the tension gauge to push the tension post to the direction **R** until the voltage at the **TP402** is **3.8V**(PLAY position).
4. Adjust the position of **hook(B)** so that the indication of gauge is within specification. To adjust hook(B), loosen the **screw (C)**.



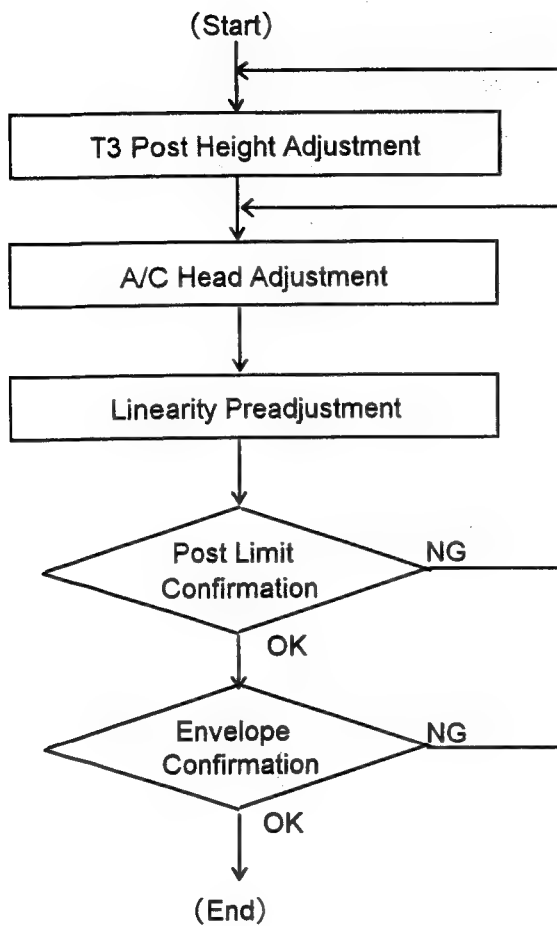
1-12. REV Tension Confirmation

BOARD	Servo
SPEC.	18 ± 2 g
TEST	TP402
MODE	STOP
M.EQ	Digital Volt meter VFK1188 (30g Dial Tension Gauge)

1. Set the tube* to cover the sensor LED and place the unit in no tape loading mode.
2. Insert the tension gauge to push the tension post to the direction **R** until the voltage at the **TP402** is **1.2V**(REV position).
3. Confirm that the indication of gauge is within specification. If not, make the Tension Spring Adjustment again.



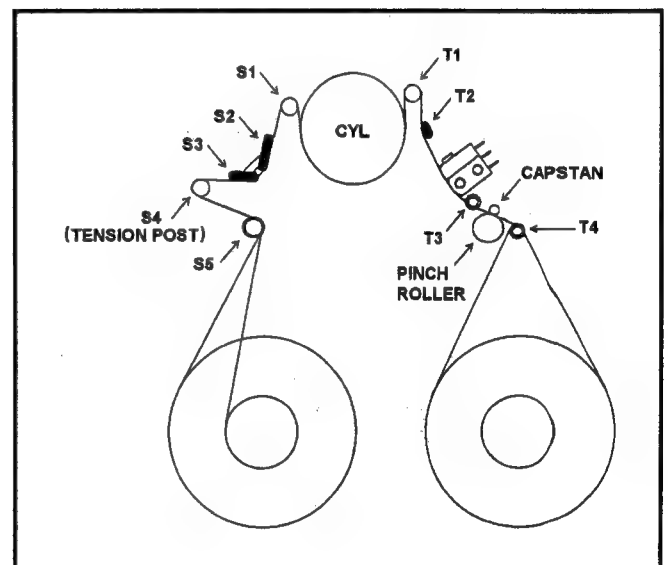
1-13. Tape Path Adj. Flowchart



1-14. T3 Post Height Adjustment

SPEC.	No tape curl
ADJUST	T3 Post Height
MODE	PLAY
TAPE	Blank tape
M.EQ	VFK1151(Box Driver)

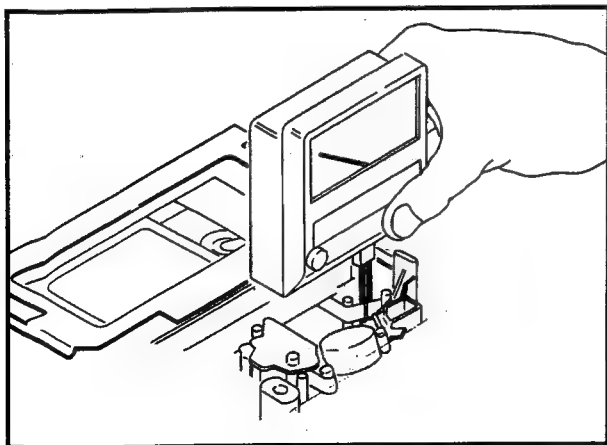
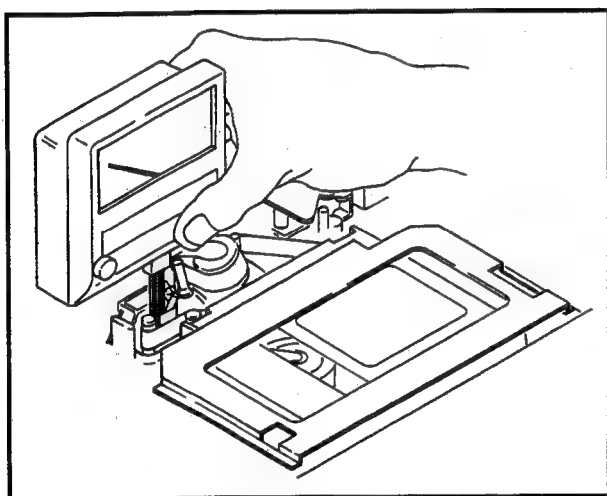
1. Confirm that the tape has no curl at T3 post.
2. If not, adjust the **T3 post height** so that no tape curl occurs to the tape edge.



1-15. Tension Confirmation

SPEC.	(PLAY) $6.0 \pm 1g$, (REV) $9.0 \pm 2g$
MODE	PLAY, REV
TAPE	M size cassette(63min)
M.EQ	VFK1145(Tension Meter)

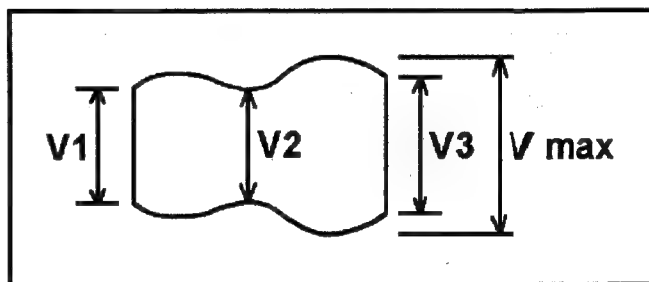
1. Play back beginning portion of the tape.
2. Insert the tension meter between **S3 post** and **S4 post**. (Top figure)
3. Confirm the tension is within specification.
4. Place the unit in REV mode.
5. Insert the tension meter between **S4 post** and **S5 post**. (Bottom figure)
6. Confirm the tension is within specification.



1-16. Linearity Preadjustment

SPEC.	$V1/V_{max}, V2/V_{max}, V3/V_{max} \geq 0.8$
TEST	TP500(RF Board)
ADJUST	S1, T1 Post Height
MODE	PLAY(ATF)
TAPE	(NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	Oscilloscope, VFK1149 (Post Driver)

1. Playback the alignment tape.
2. Adjust the **S1** and **T1 posts** so that the envelope output is within specification.



1-17. Post Limit Confirmation 1

SPEC.	Post limits shown in the table. No tape curl
MODE	PLAY
TAPE	(NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	VFK1149 (Post Driver) VFK1151 (Box Driver)

Post Limit Table

Post	Limit	Adjustment
S5 Post	Lower Limit or Free	S5 Post Height
S4 Post	Lower Limit	S4 Post Height
S1 Post	Upper Limit	Linearity
T1 Post	Upper Limit	Linearity
T3 Post	Lower Limit	T3 Post Height
T4 Post	Lower Limit or Free	T4 Post Height

1. Confirm the post limit of each post and adjust in case of need.

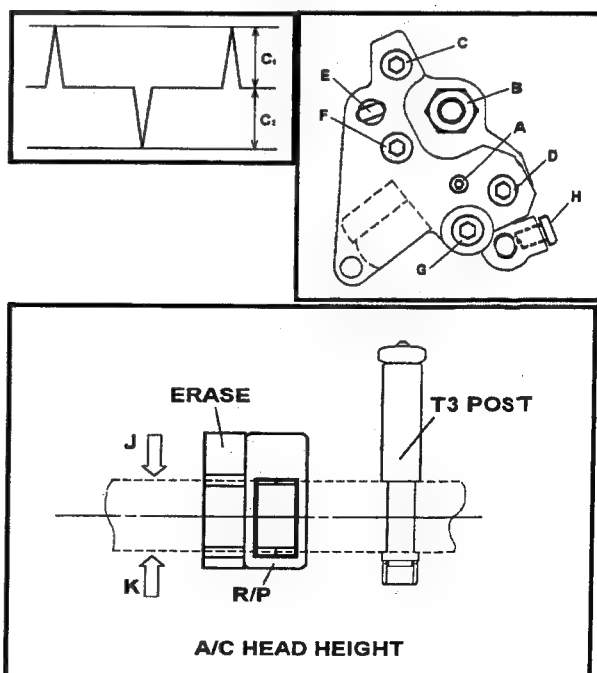
1-18. A/C Head Height Adjustment

BOARD	Servo
SPEC.	CTL Output : C1, C2 \geq 220 (mV)
TEST	TP107 : CTL Output
ADJUST	Screw B, H(A/C Head)
MODE	PLAY
TAPE	(NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	Oscilloscope VFK1150, VFK1190

1. Monitor the **TP107** on the Servo board.
2. Press the tape to the direction **J** or **K** and confirm that the **CTL** output level is **decreased**.
3. If direction **J** increases CTL output, loosen the **screw H** and adjust the **screw B** counterclockwise until CTL output is maximized.
4. If direction **K** increases CTL output, loosen the **screw H** and adjust the **screw B** clockwise until CTL output is maximized.
5. After tightening the **screw H(2.0kg)**, confirm the level again.

Note.

1. Adjust alternately with other A/C head adjustments(Azimuth, Height).



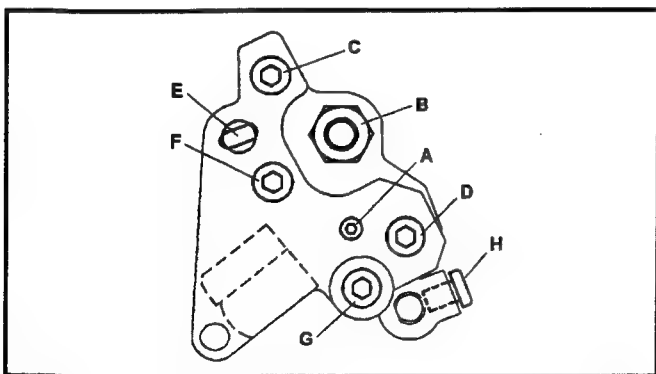
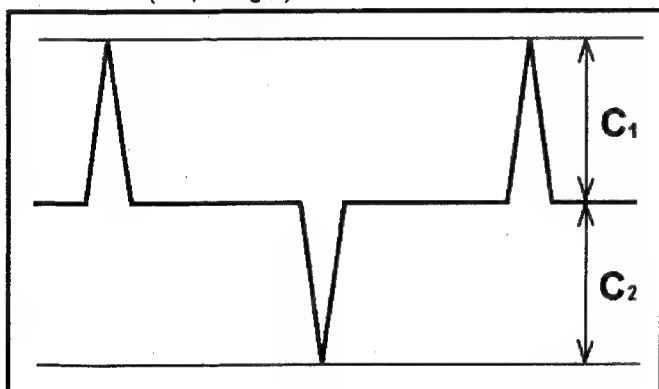
1-19. A/C Head Azimuth Adjustment

BOARD	Servo
SPEC.	CTL Output : C1, C2 = C1 max, C2 max
TEST	TP107 : CTL Output
ADJUST	Screw F(A/C Head)
MODE	PLAY
TAPE	(NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	Oscilloscope, VFK1148(Box Driver)

1. Monitor the **TP107** on the Servo Board and adjust the **screw F** so that the **TP107** is maximized.

Note.

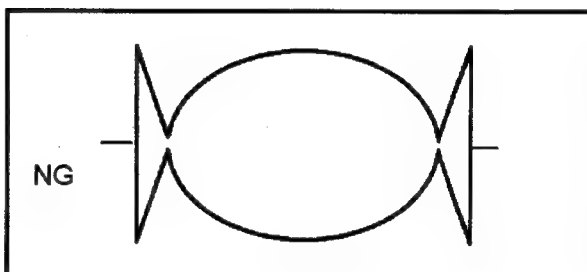
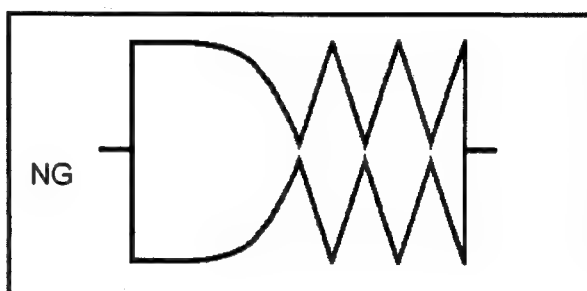
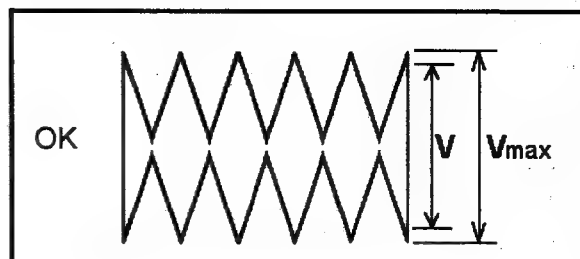
1. Adjust alternately with other A/C head adjustments(Tilt, Height).



1-20. Envelope Confirmation 1

SPEC.	$V/V_{\max} \geq 0.8$
TEST	TP500(RF Board)
MODE	FF, REW, REV(PLAY&REW)
TAPE	(NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	Oscilloscope

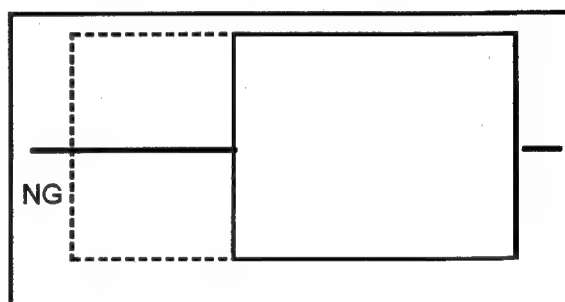
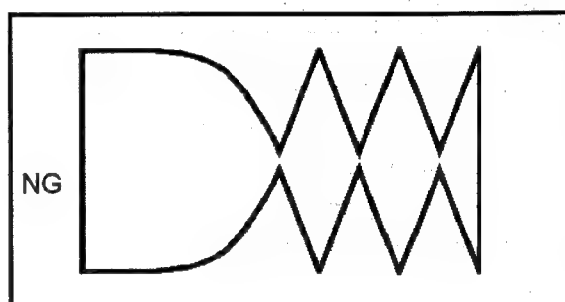
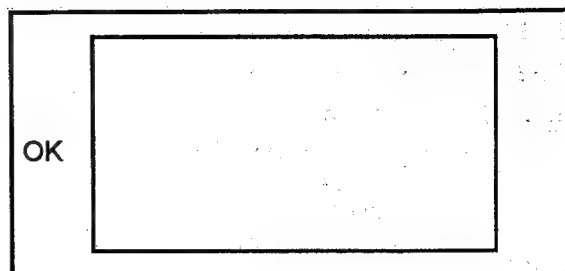
1. Confirm the envelope in each mode.
2. If out of specification, adjust the **S4 post height** again.



1-21. Envelope Confirmation 2

SPEC.	Envelope appears immediately.
TEST	TP500(RF Board)
MODE	REW/REV(PLAY&REW) → PLAY FF → PLAY LOADING → PLAY
TAPE	(NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	Oscilloscope

1. Confirm that the envelope appears immediately when the mode is switched from REW to PLAY, from REV to PLAY, from FF to PLAY and from LOADING to PLAY.
2. If out of specification, adjust the **S4 post height** again.



1-22. S4 Post Height Adjustment

SPEC.	Envelope appears immediately.
TEST	TP500(RF Board)
ADJUST	S1, T1, S4 Post
MODE	REW/REV(PLAY&REW) → PLAY FF → PLAY LOADING → PLAY
TAPE	(NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	Oscilloscope

1. This adjustment must be done only when out of specification in Linearity Preadjustment, Envelope Confirmation1 or 2.
2. Turn the **S4 post 90 degrees counterclockwise** and adjust **S1** and **T1** posts again.
3. Confirm that the envelope appears immediately when the mode is switched from REW to PLAY, from REV to PLAY, from FF to PLAY and from LOADING to PLAY.
4. If out of specification, repeat 2. again. Do not turn the S4 post more than 360 degrees.

1-23. Post Limit Confirmation 2

SPEC.	Post limits shown in the table. No tape curl
MODE	REV(PLAY&REW)
TAPE	(NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	VFK1149 (Post Driver) VFK1151 (Box Driver)

Post Limit Table

Post	Limit	Adjustment
S5 Post	Free	S5 Post Height
S4 Post	Lower Limit or Free	S4 Post Height
S1 Post	Upper Limit	Linearity
T1 Post	Free	Linearity
T3 Post	Lower Limit	T3 Post Height
T4 Post	Lower Limit	T4 Post Height

1. Confirm the post limit of each post and adjust again in case of need.

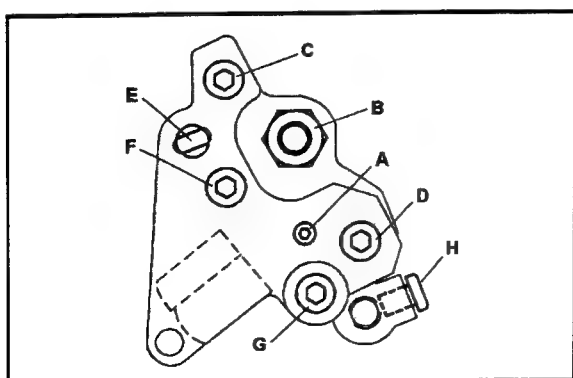
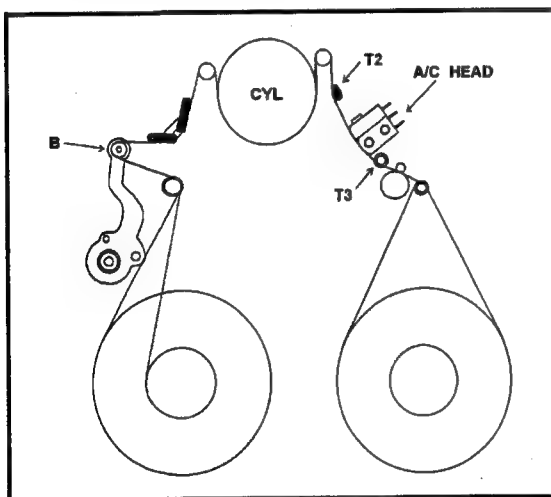
1-24. A/C Head Tilt Adjustment

SPEC.	No tape curl, Lower limit at T3 post
ADJUST	Screws A and G (A/C Head)
MODE	PLAY
TAPE	Blank tape
M.EQ	VFK1148, VFK1178(Hex. Wrench)

1. Confirm that the **screw (G)** is tightened with **1.0kg of torque**.
2. Play back the tape and adjust the A/C head tilt with **screw(A)** so that the tape path has lower limit at T3 post.

Note.

1. Screw(A) : clockwise : Tape goes up at T3 post.
counterclockwise : Tape goes down.
2. The final touch of the adjustment must be turned clockwise.
3. Adjust alternately with each A/C head adjustment(Azimuth, Height).



1-25. Post Limit Confirmation 3

SPEC.	Post limits shown in the table. No tape curl
MODE	FF, REW
TAPE	M cassette (beginning or ending portion) (NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	VFK1149 (Post Driver) VFK1151 (Box Driver)

Post Limit Table

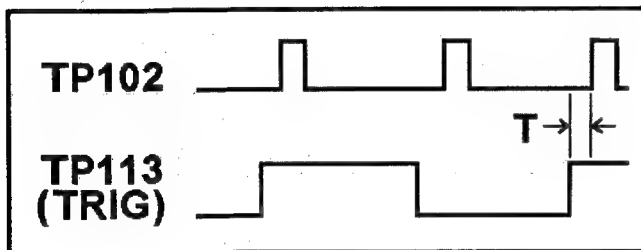
Post	Limit	Adjustment
S5 Post	Free	S5 Post Height
S4 Post	Lower Limit or Free	S4 Post Height
S1 Post	Upper Limit	Linearity
T1 Post	Free	Linearity
T3 Post	Free	T3 Post Height
T4 Post	Lower Limit or Free	T4 Post Height

1. Confirm **Post Limit Confirmation 1 and 2** playing back beginning or ending portion of M cassette.
2. Confirm the post limit of each post and adjust again in case of need.
3. If T3 post is adjusted, confirm that the tape has no curl at T3 post when loading or unloading.

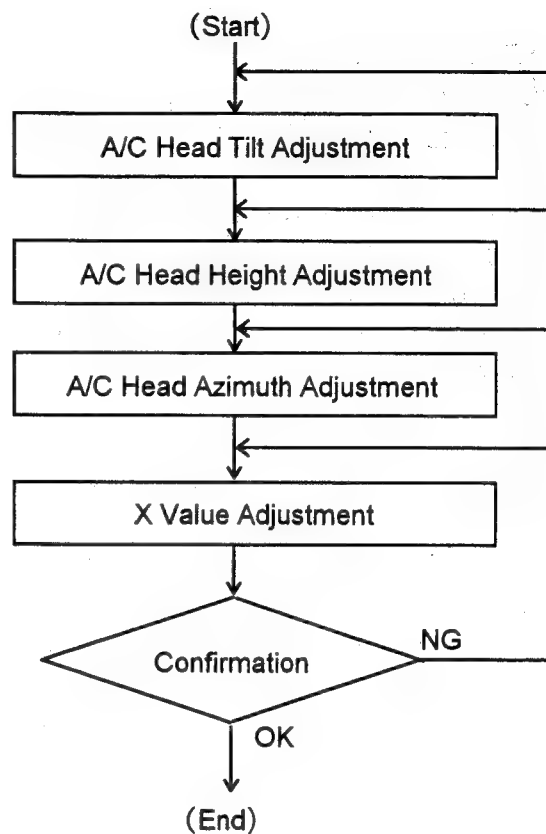
1-26. PG Shifter Adjustment

BOARD	Servo
SPEC.	$126.3 \pm 2.5 \mu s$
TEST	TP113, TP102
ADJUST	VR101
MODE	PLAY
TAPE	(NTSC)VFM3580KM(No.1 : 0~14min) (PAL)VFM3680KM(No.1 : 0~10min)
M.EQ	Oscilloscope

1. Adjust the **VR101** so that the T is within specification. (Trigger : TP113).



1-27. A/C Head Adj. Flowchart



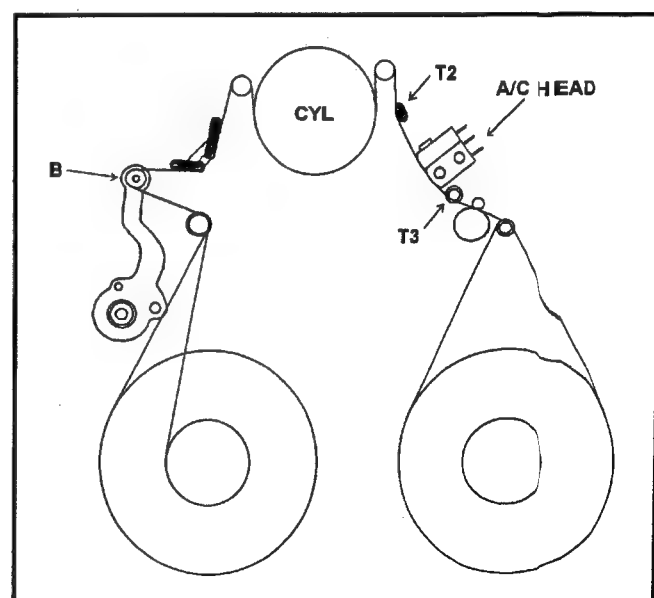
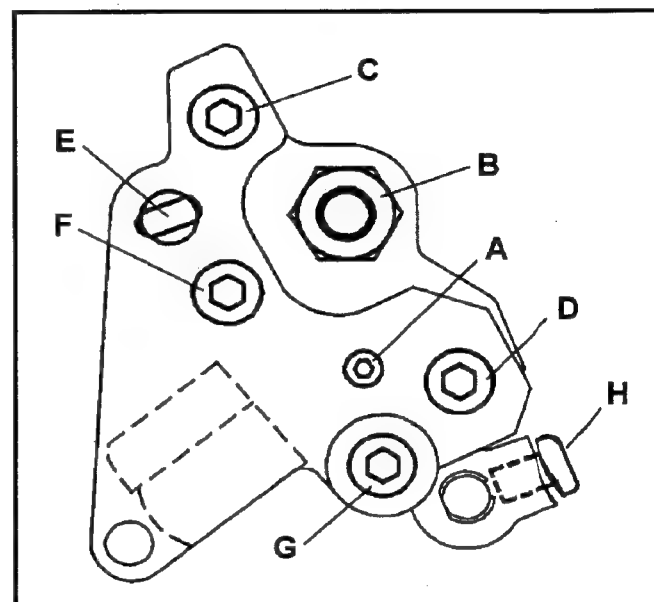
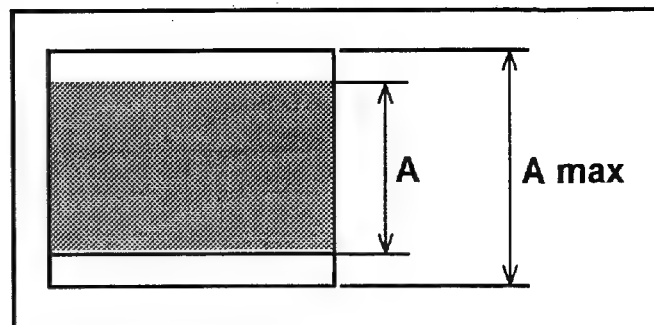
1-28. A/C Head Tilt Confirmation

SPEC.	CUE Output : $A/A_{max} \geq 0.9$
TEST	TP505(Audio LCD Board)
ADJUST	Screw A, G(A/C Head)
MODE	PLAY
TAPE	(NTSC)VFM3580KM(No.1 : 14~22min) (PAL)VFM3680KM(No.1 : 14~22min)
M.EQ	Oscilloscope VFK1178, VFK1148 (Hex Wrench)

1. Playback the CUE portion(6kHz) of the Alignment tape.
2. Confirm that the screw **G** and **H** are not loosened.
3. Vibrate the tension arm horizontally and confirm that the output level is within specification.
4. If out of specification, loosen the screw **G** and adjust the screw **A**, then tighten the screw **G** with 1.0kg torque

Note.

1. The final touch of the adjustment must be turned clockwise. After the adjustment, confirm that the screw **A** is not loosened.
2. When the screw **A** is adjusted, make Post Limit Confirmation 1 again.



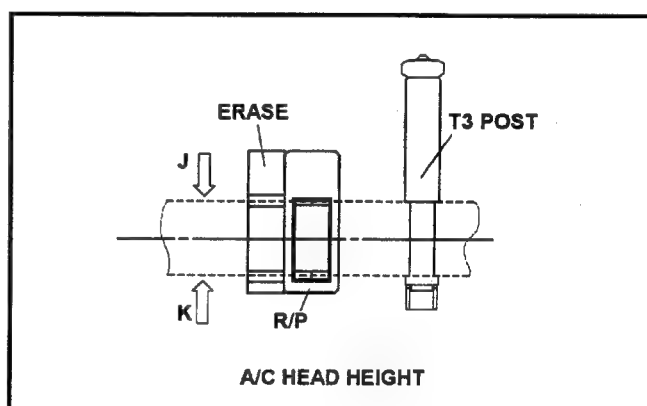
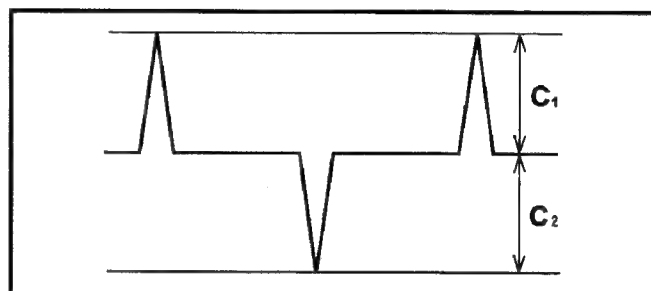
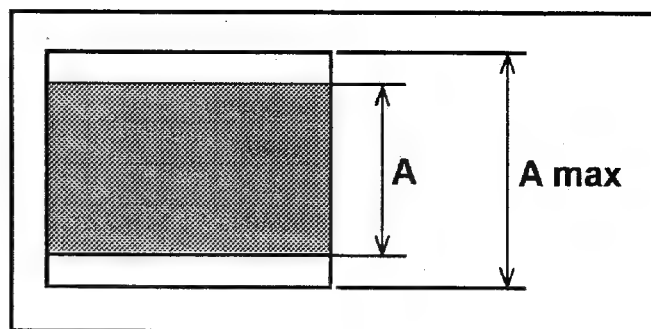
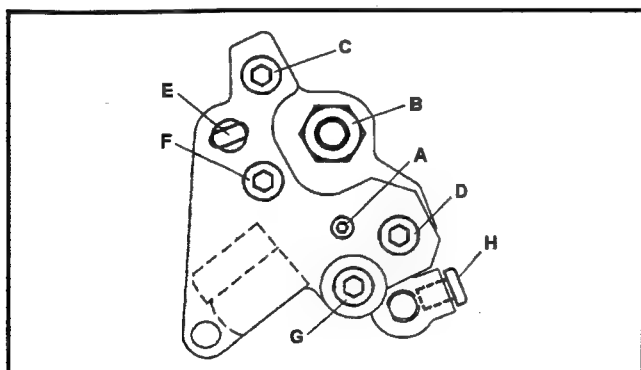
1-29. A/C Head Height Confirmation

SPEC.	CUE Output : $A = A \text{ max}$ CTL Output : $C_1, C_2 \geq 220\text{mV}$
TEST	TP505 (Audio LCD Board) TP107 (Servo Board)
ADJUST	Screw B, H (A/C Head)
MODE	PLAY
TAPE	(NTSC)VFM3580KM(No.1 : 14~22min) (PAL)VFM3680KM(No.1 : 14~22min)
M.EQ	Oscilloscope, VFK1150, VFK1190(Hex L type)

1. Confirm that the **screw H** is tightened.
2. Playback the CUE portion(6kHz) of the Alignment tape.
3. Push the tape to the **direction J** or **K** and confirm that the **TP505** level is not increased.
4. If it is increased, make "A/C Head Height Adjustment" again.

Note.

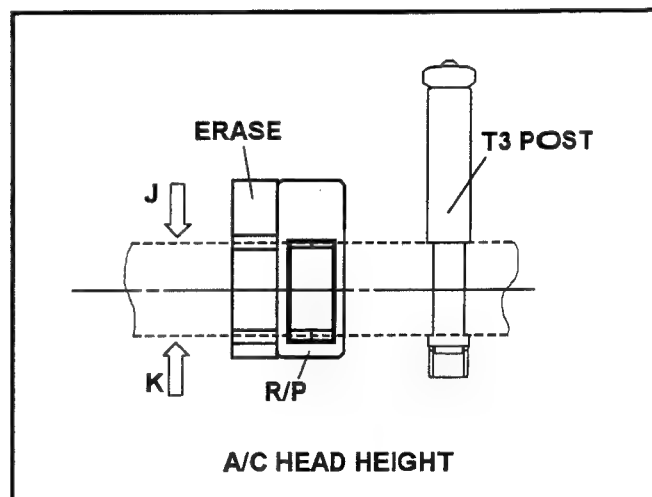
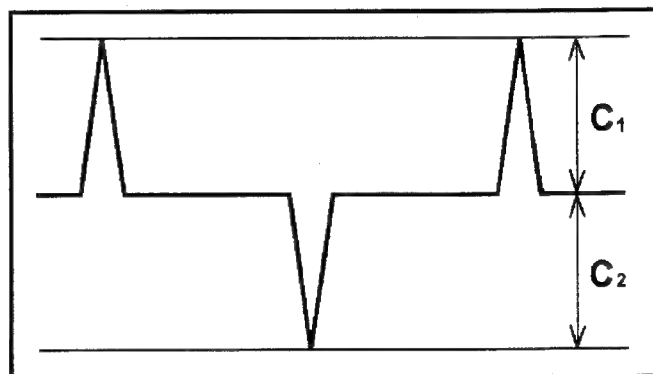
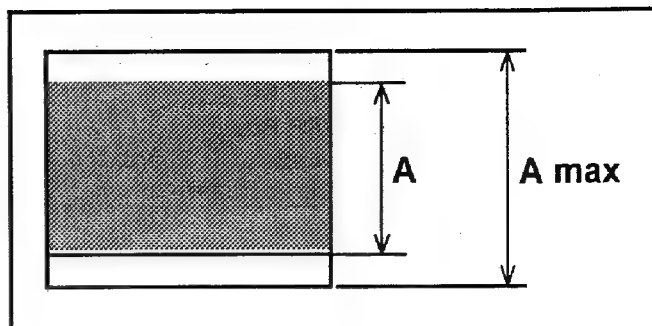
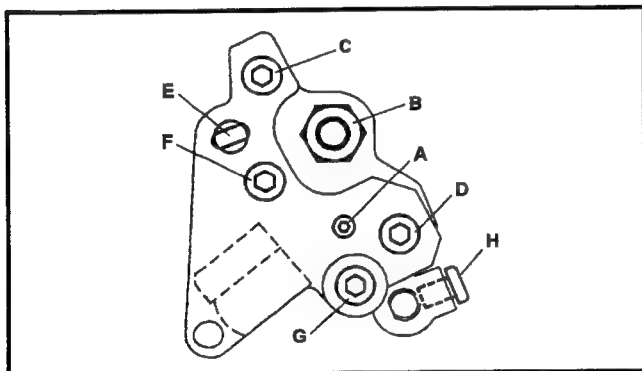
1. Adjust alternately with A/C Head Azimuth adjustments.



1-30. A/C Head Azimuth Confirmation

SPEC.	CUE Output : $A = A \text{ max}$ CTL Output : $C1, C2 \geq 220\text{mV}$
TEST	TP505 (Audio LCD Board) TP107 (Servo Board)
ADJUST	Screw F (A/C Head)
MODE	PLAY
TAPE	(NTSC)VFM3580KM(No.1 : 14~22min) (PAL)VFM3680KM(No.1 : 14~22min)
M.EQ	Oscilloscope, VFK1148 (Hex Driver)

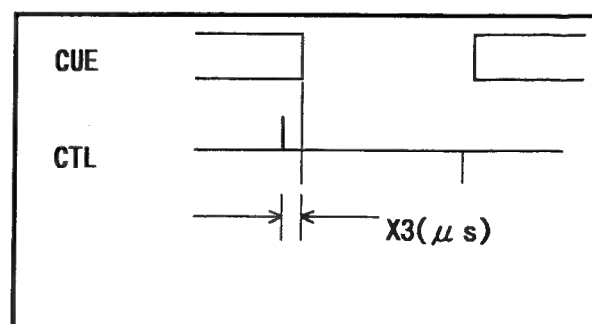
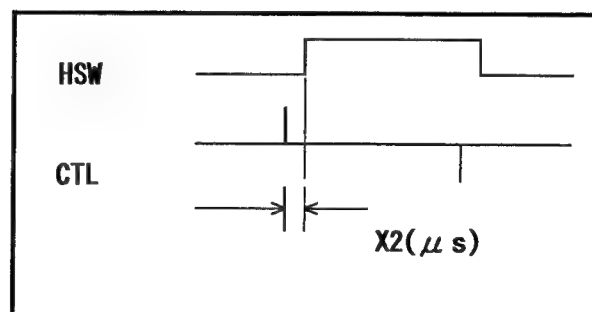
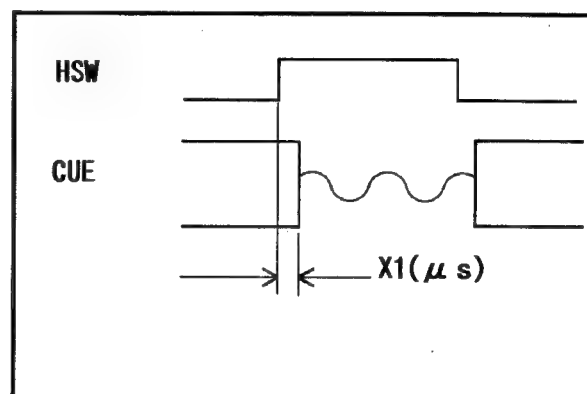
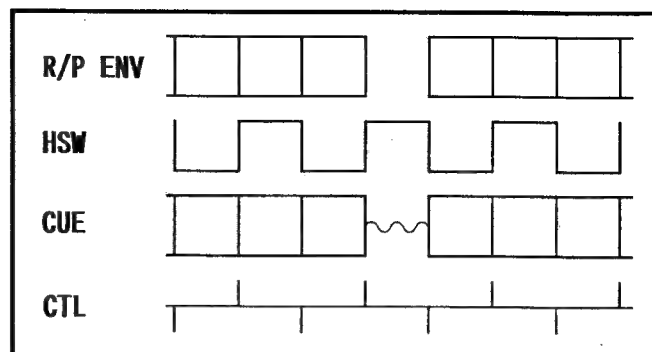
1. Playback the CUE portion(6kHz) of the Alignment tape.
2. Push the tape to the **direction J** or **K** and confirm that the **TP505** level is not increased.
3. If it is increased, make "A/C Head Azimuth Adjustment" again.



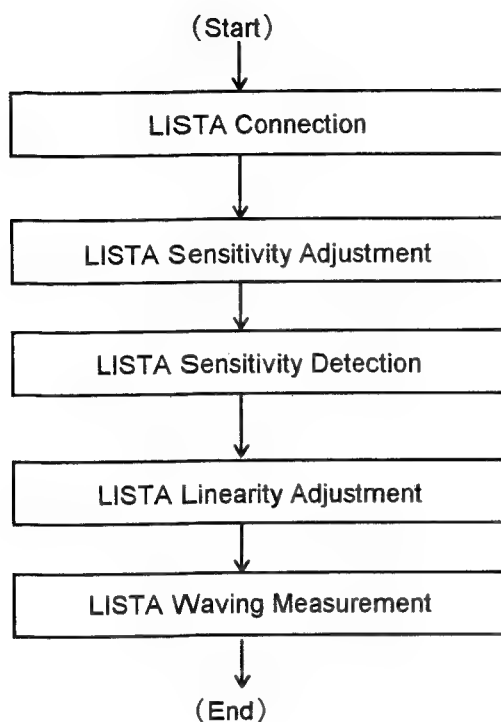
1-31. X Value Adjustment

SPEC.	$-250\mu\text{s} \leq X1, X2, X3 \leq 250\mu\text{s}$
TEST	TP500 : R/P ENV (RF Board) TP300 : HSW (RF Board) TP505 : CUE (Audio LCD Board) TP107 : CTL (Servo Board)
ADJUST	A/D Head
MODE	PLAY(ATF control)
TAPE	(NTSC) VFM3582KM (X Value) (PAL) VFM3682KM (X Value)
M.EQ	Oscilloscope, VFK0357 (Eccentric Driver), Hex driver

1. Adjust **A/C Head Azimuth** so that the CTL and lack part of CUE are match in the phase.
2. Confirm the lack track of R/P envelope and select the HSW correspond with it (The lack track corresponds to Lch(HSW : High)).
3. Adjust CUE phase (**X Value**) so that the lack part of CUE and selected HSW are match in the phase. [To adjust X Value, loosen the screws **C** and **D**. Adjust the hole **E** and then tighten the screws **C** and **D** with 2.5kg torque.]
4. Adjust the **Azimuth** at the same time so that the relation between the CTL and CUE is kept.
5. Confirm that X1, X2 and X3 are within specification.



1-32. Linearity Adjustment Flowchart



1-33. LISTA Connection

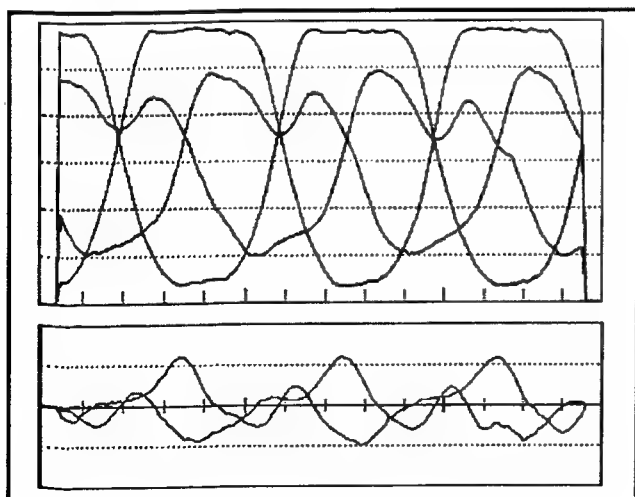
BOARD	Servo
TEST	TP115 : ATF Error (Servo Board) TP113 : HSW_R (Servo Board) TG300 : GND (Servo Board)
TAPE	VFM3581KM(No.2 : LISTA master) VFM3681KM(No.2 : LISTA master)
M.EQ	LISTA

1. Confirm that the power is turned off and make a short-circuit between **TP902** and **TP116**.
2. Connect LISTA cable between A/D board and the test points as shown in table above.
3. Execute LISTA**E.EXE. (** is a software version.)
4. Select "<2>AJ-D800" menu in the LISTA menu.
5. Select the number of the alignment tape. If the alignment tape data is not entered, input the data written on the enclosed paper into PC manually.

1-34. LISTA Sensitivity Adjustment

BOARD	Servo
SPEC.	Sensitivity : 100 ± 10 (mV/ μ m)
TEST	TP115 : ATF Error (Servo Board) TP113 : HSW_R (Servo Board) TG300 : GND (Servo Board)
ADJUST	ATF Gain (EVR)
MODE	+1.2% Playback
TAPE	VFM3581KM(No.2 : LISTA master) VFM3681KM(No.2 : LISTA master)
M.EQ	LISTA, EVR

1. Set up the EVR tool according to Connection figure at the beginning of Electrical Adjustments.
2. Confirm that the power is turned off and make a short-circuit between **TP902** and **TP116** to place the unit in +1.2% Playback mode.
3. Playback an alignment tape.
4. Select **<6>ATF Error Signal Monitor** menu and display the sensitivity data.
5. Before adjusting, data is displayed as 85. This value isn't read from VTR. After inputting data once, displayed data becomes the same as VTR's.
6. Press the [\rightarrow] or [\leftarrow] key in PC so that the sensitivity value which is described as **Sens. Value** is within specification.
7. After the adjustment, press ESC key to exit to the menu.



1-35. LISTA Sensitivity Detection

BOARD	Servo
SPEC.	Sensitivity : 100 ± 10 (mV/ μ m)
TEST	TP115 : ATF Error (Servo Board) TP113 : HSW_R (Servo Board) TG300 : GND (Servo Board)
MODE	+1.2% Playback
TAPE	VFM3581KM(No.2 : LISTA master) VFM3681KM(No.2 : LISTA master)
M.EQ	LISTA

1. Confirm that the power is turned off and make a short-circuit between **TP902** and **TP116** to place the unit in +1.2% Playback mode.
2. Playback an alignment tape.
3. Select **<1>Sensitivity Measurement** menu and start the sensitivity detection.
4. Confirm that the sensitivity value is within specification.
5. If out of specification, repeat the steps 3 and 4.
6. If still out of specification, make "LISTA Sensitivity Adjustment again.

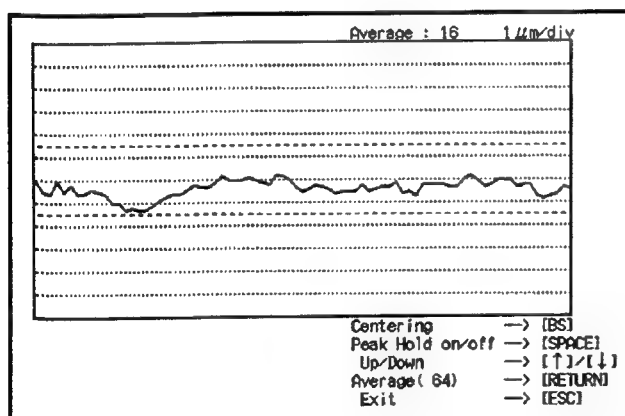
1-36. LISTA Linearity Adjustment

BOARD	Servo
SPEC.	Linearity : Less than 3 μ m
TEST	TP115 : ATF Error (Servo Board) TP113 : HSW_R (Servo Board) TG300 : GND (Servo Board)
ADJUST	S1, T1 Post Height
MODE	LISTA mode
TAPE	VFM3581KM(No.2 : LISTA master) VFM3681KM(No.2 : LISTA master)
M.EQ	LISTA, VFK1149 (Post Driver)

1. Confirm that the power is turned off and make a short-circuit between **TP902**, **TP116** and **TP101** to place the unit in LISTA mode.
2. Playback an alignment tape.
3. Select **<2>Linearity Measurement** menu, and display the linearity.
4. Adjust the **S1 post height** and **T1 post height** so that the linearity is within specification.

Note.

1. Lower part of the monitor shows the lead.
2. Current linearity is red line.



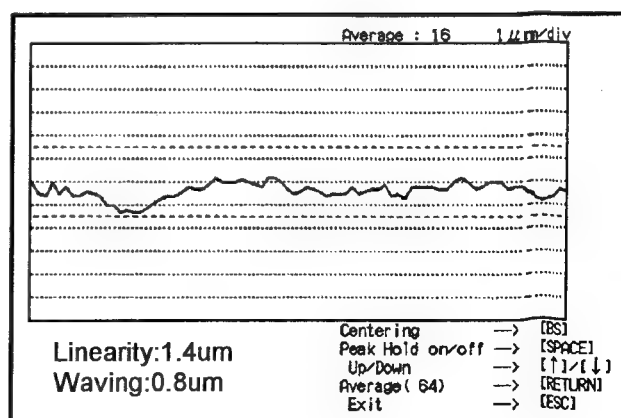
1-37. LISTA Waving Measurement

BOARD	Servo
SPEC.	Waving : Less than 1.5 μ m
TEST	TP115 : ATF Error (Servo Board) TP113 : HSW_R (Servo Board) TG300 : GND (Servo Board)
ADJUST	S1, T1 Post Height
MODE	LISTA mode
TAPE	VFM3581KM(No.2 : LISTA master) VFM3681KM(No.2 : LISTA master)
M.EQ	LISTA, VFK1149 (Post Driver)

1. Confirm that the power is turned off and make a short-circuit between **TP902**, **TP116** and **TP101** to place the unit in LISTA mode.
2. Playback an alignment tape.
3. Select **<2>Linearity Measurement** menu, and display the linearity.
4. After linearity is displayed, press the SPACE key to hold the peak (Peak-Hold) during 30 seconds.
5. After Peak-Hold, press the SHIFT key and } key together to display the measurement value and confirm that the value is within specification.
6. After the adjustment, press ESC key to exit to the menu.

Note.

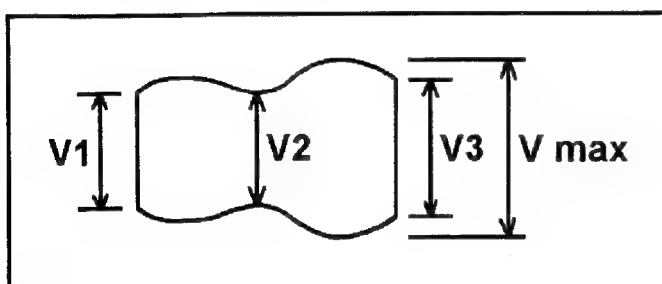
1. Confirm that waving value is almost same from the entrance to the exit.
2. If out of specification because of wrong post limits, adjust the S1 and T1 posts again.



1-38. Linearity Confirmation

SPEC.	$V1/V_{max}, V2/V_{max}, V3/V_{max} \geq 0.8$
TEST	TP500(RF Board)
MODE	PLAY(ATF)
TAPE	Blank Tape
M.EQ	Oscilloscope, VFK1149 (Post Driver)

1. Record the color bar signal.
2. Play back the recorded portion and confirm that the envelope output is within specification.



SECTION 4

ELECTRICAL ADJUSTMENTS

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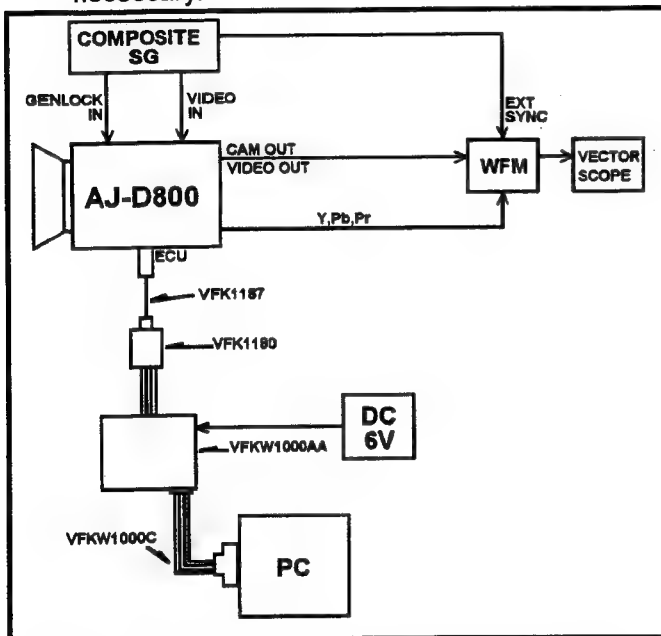
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1. Camera Section

Setup of EVR Tool

1. Turn the power switches of the camera recorder and the EVR OFF.
2. Connect the tools as shown in figure. 7 pins cable is necessary to be connected between VFK1180 and VFKW1000AA. Another cable is no necessary.



2. Turn the power of PC and EVR ON and then camera recorder ON.
3. Pressing [SHIFT],[+] and [-] buttons in operation panel, set the MENU SW to SET.
4. Press the PAGE button to open the SERVICE ADJ. menu. Select EVR in ECU CONNECT. After setting turn the MENU OFF.
5. Execute the CAM_TOOL.EXE on command prompt condition to start EVR program.
6. Follow the displayed instructions until MAIN MENU is shown. (If the bar graph stops before 100% and MAIN MENU is not opened, turn the power of I/F box (VFKW1000AA) OFF and ON. Then execute the EVR program again.)

Function (Ver.3.2)

MAIN MENU

1. BACK UP (DOWN LOAD) RAM DATA.
2. RESTORE (UPLOAD) RAM DATA.
3. PREPARATION OF ADJUSTMENT.
4. START ADJUSTMENT.
5. ELECTRICAL ADJUSTMENT.
6. E.V.R. DIRECT FUNCTIONS.
7. BACK UP (DOWN LOAD) RAM DATA.< OPTION >
8. RESTORE (UPLOAD) RAM DATA < OPTION >
9. CREATE ADJUSTMENT ITEM <PRODUCTION>
10. START ADJUSTMENT <PRODUCTION>

1, 2 : VTR's RAM DATA is backed up and restored.
Back up data is named as ----- . SAV. ".SAV" is automatically added.

3~5 : Not supported.

6 :Refer to next page.

7,8 :Not completed. Don't use.

9. :Not supported.

10. :Refer to next page.

E.V.R. Direct Functions

1. COMMAND INPUT FUNCTION

[E.V.R. FUNCTION]

COMMAND : [00]
DATA : 00
ADDRESS : 00

[MACRO FUNCTION]

- 1. CAMERA RESET No.1. [F1] . [A]
- 2. CAMERA RESET No.2 [F1] . [B]
- 3. VF OUT. [F1] . [C]
- 4. MONITOR OUT LEVEL. [F2] . [0]

« Page Up: INC Page Down DEC »

1. Select <6.E.V.R. DIRECT FUNCTIONS> in MAIN MENU, and next selection appears.
2. Select <1.COMMAND INPUT FUNCTION>, and COMMAND INPUT FUNCTION menu is available as shown above.
3. Input COMMAND, DATA and ADDRESS according to adjustment procedure.
4. After adjustment, press [ESC] key to quit.

Note:

1. After operating EVR, turn the VTR off and on.
2. When the SYSCON PROM is updated, execute the CAMERA RESET No.1 in COMMAND INPUT FUNCTION menu. Press the [F1] and [A] keys together, and then press [ENTER] key.
3. The difference between CAMERA RESET No.1 and No.2;
No.1 : Adjustment data isn't reset.
SETUP menu is reset.
No.2 : Adjustment data is also reset.

Start Adjustment

1. Select <10.START ADJUSTMENT> in MAIN MENU.
2. After selecting NTSC/PAL, press ENTER or ESC key to continue.
3. Adjustment items appear with command, data and address;

CMD DATA ADR AREA
[02] [00] [04] [00][FF]

CMD : command.

DATA : initial data. Not factory data. Not VTR data.

ADR : address. Confirm to Service Manual that selected item is correct.

AREA : adjustable range.

4. Select an adjustment item.
5. Following values are displayed;
Command = [02]
Data = [00]
Address = [04]
Read Data = [06]

Data : data to be sent to VTR.

Read Data : data sent from VTR.

6. To adjust VTR;
1. Input data and press [ENTER] key.
2. Press [+] or [-] key.
7. After adjustment, press [ENTER] key to quit.

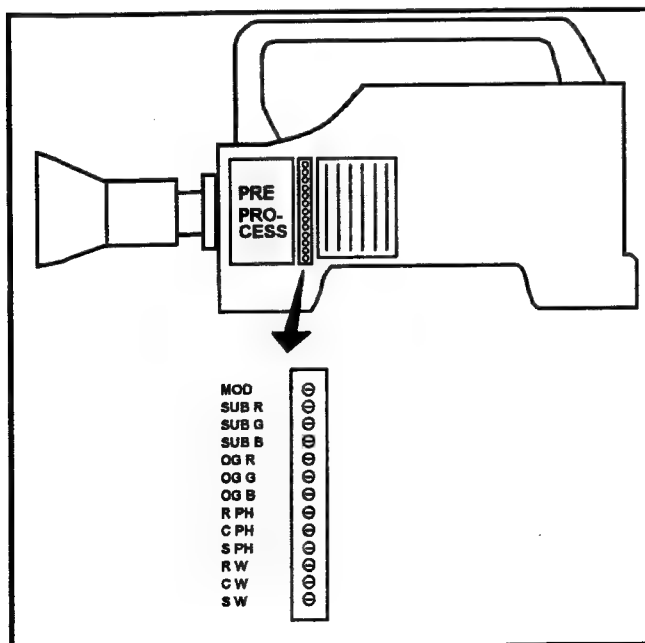
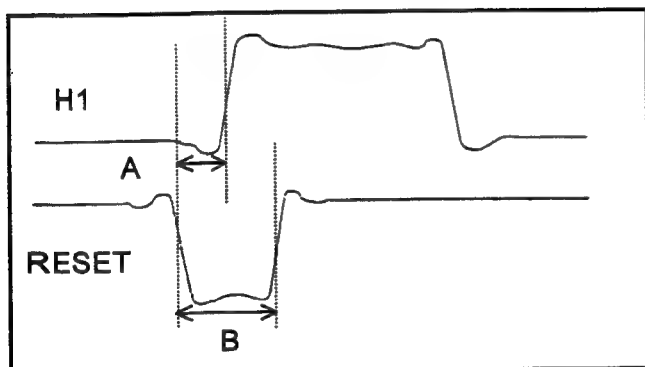
Note:

1. After operating EVR, turn the VTR off and on.
2. START ADJUSTMENT menu is possible to read out data from VTR.

1-1. Reset Pulse Adjustment

BOARD	Pulse
SPEC.	A: $5.6 \pm 1\text{ns}$, B: $9.6 \pm 1\text{ns}$
TEST	TP1(R), TP3(H2)
ADJUST	VR1(R PH), VR4(R W)
M.EQ	Oscilloscope

1. Remove the camera unit.
2. Adjust the **VR4** so that the pulse width B at the **TP1** is within specification.
3. Adjust the **VR1** so that the phase difference A is within specification. (Trigger : TP3)



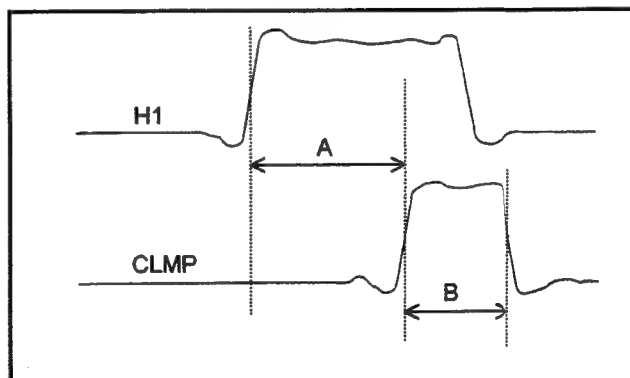
1-2. Clamp Pulse Adjustment

BOARD	Pulse
SPEC.	A: $26.4 \pm 1\text{ns}$, B: $12.5 \pm 1\text{ns}$
TEST	TP3002(CDS Board), TP3
ADJUST	VR2(C PH), VR5(C W)
M.EQ	Oscilloscope

1. Adjust the **VR5** so that the pulse width B (TP3002) is within specification.
2. Adjust the **VR2** so that the phase difference A is within specification. (Trigger : TP3)

Note.

1. If the adjustment is not completed even after the VR is fully turned, keep the VR where it is. (left end or right end)



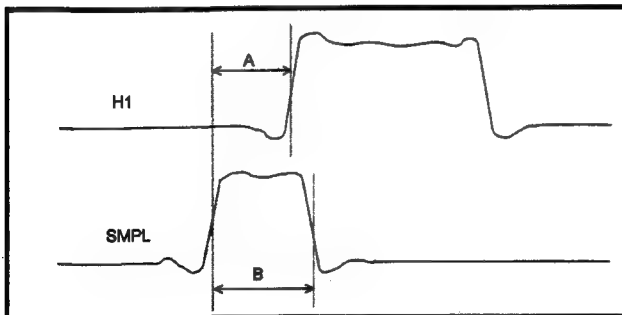
1-3. Sample Pulse Adjustment

BOARD	Pulse
SPEC.	A: $17.5 \pm 1\text{ns}$, B: $17.9 \pm 1\text{ns}$
TEST	TP3001(CDS Board), TP3
ADJUST	VR3(S PH), VR6(S W)
M.EQ	Oscilloscope

1. Adjust the **VR6** so that the pulse width B(TP3001) is within specification.
2. Adjust the **VR3** so that the phase difference A is within specification.(Trigger : TP3)

Note.

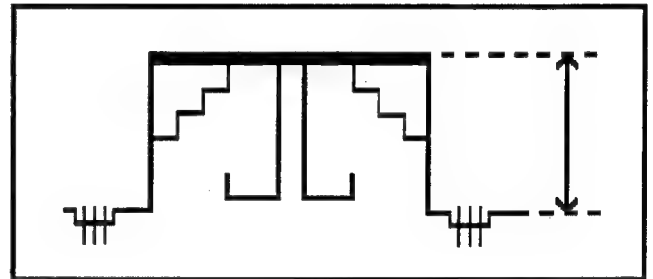
1. If the adjustment is not completed even after the VR is fully turned, keep the VR where it is.(left end or right end)



1-4. Reset DC Adjustment

BOARD	Pulse
TEST	TP3203(CDS Board)
ADJUST	VR13(R DC), VR8 (SUB G)
F.NBR.	Open
CHART	Grayscale Chart
M.EQ	Oscilloscope

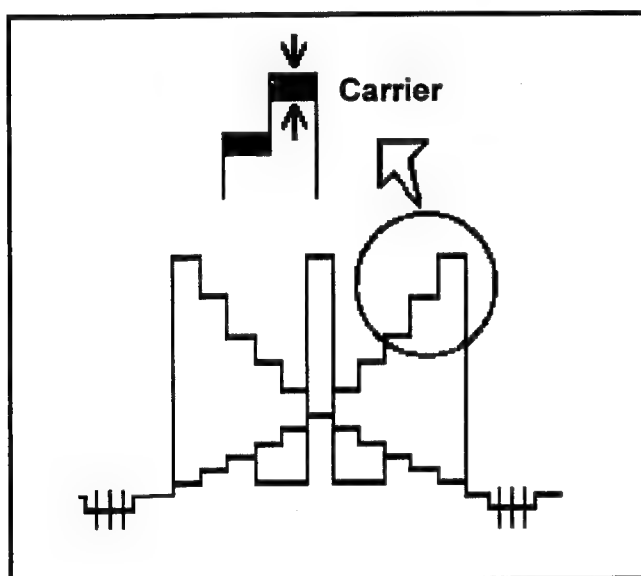
1. Turn the **VR8** counterclockwise fully so that the saturation level depends on R DC.
2. Turn the **VR8** colockwise until the saturation level depends on SUB.
3. Adjust the **VR13** so that the waveform level is maximized.
4. Install the camera unit again.



1-5. Carrier Leak Adjustment

BOARD	CDS
TEST	TP103(R), TP203(G), TP303(B)
ADJUST	VC101(R), VC201(G), VC301(B)
F.NBR.	F8 (2000LUX)
CHART	Grayscale Chart
M.EQ	Oscilloscope, Lux Meter

1. Monitor the **TP103** and adjust the **VC101** so that the carrier leak is minimized.
2. Monitor the **TP203** and adjust the **VC201** so that the carrier leak is minimized.
3. Monitor the **TP303** and adjust the **VC301** so that the carrier leak is minimized.



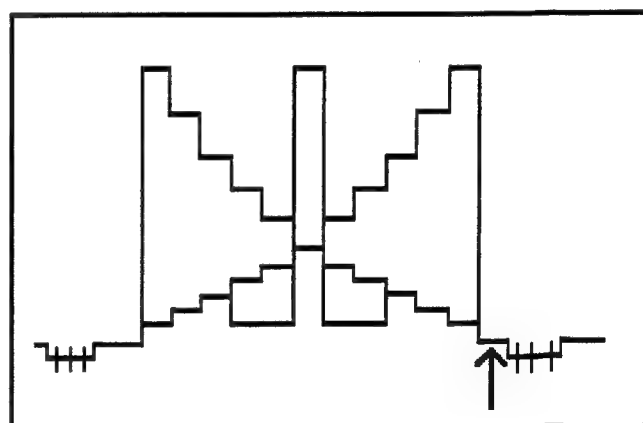
1-6. CDS OUT DC Adjustment

BOARD	CDS
SPEC.	150±50mV
TEST	TP103(R), TP203(G), TP303(B)
ADJUST	VR102(R), VR202(G), VR302(B)
F.NBR.	F8
CHART	Grayscale Chart
M.EQ	Oscilloscope

1. Monitor the **TP103** and adjust the **VR102** so that the black level is within specification.
2. Monitor the **TP203** and adjust the **VR202** so that the black level is within specification.
3. Monitor the **TP303** and adjust the **VR302** so that the black level is within specification.

Note.

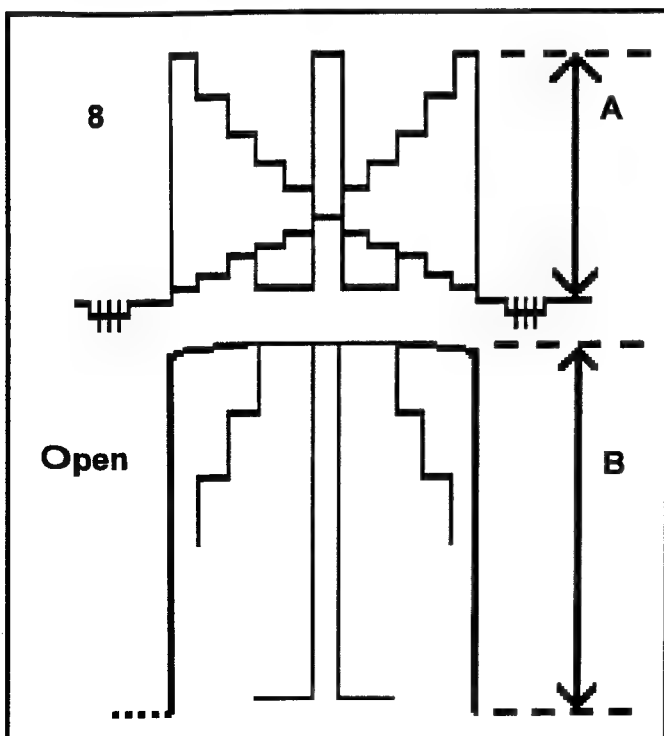
1. In case that it is difficult to recognize the black level, close the iris.
2. Monitor the center of the carrier because there is carrier on the black level.



1-7. SUB Voltage Adjustment 1

BOARD	Pulse
SPEC.	$B/A = 4 \pm 0.2$
TEST	TP103, TP203, TP303(CDS), TP4
ADJUST	VR7(R), VR8(G), VR9(B), VR13(R DC)
F.NBR.	F8 (2000LUX), Open
CHART	Grayscale Chart
M.EQ	Oscilloscope

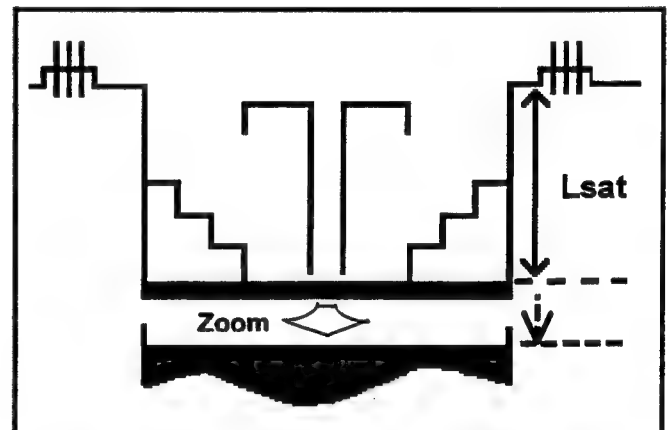
1. Monitor the **TP203(G)** on the CDS Board and measure the level A in IRIS F8.
2. Measure the level B in IRIS open.
3. Adjust the **VR8(SUB-G)** so that the B/A ratio is within specification.
4. Adjust the **VR13** so that the level B is maximized. (Exceeding specification is no problem if the voltage at TP4 is more than 1.7V.)
5. Repeat 1 to 4 to adjust G ch.
6. Monitor the **TP103(R)** and adjust the **VR7** in the same way. (Do not adjust VR13.)
7. Monitor the **TP303(B)** and adjust the **VR9** in the same way. (Do not adjust VR13.)
8. After the adjustment confirm the CDS OUT DC adjustment again.



1-8. SUB Voltage Adjustment 2

BOARD	Pulse
SPEC.	$2600 \pm 50\text{mV}$
TEST	TP2, TP202, TP402(Pre Process)
ADJUST	VR7(R), VR8(G), VR9(B)
F.NBR.	Open(2000LUX)
CHART	Grayscale Chart
M.EQ	Oscilloscope

1. Monitor the **TP2** on the Pre Process Board and adjust the **VR7** so that the voltage Lsat is within specification.
2. Monitor the **TP202** on the Pre Process Board and adjust the **VR8** so that the voltage Lsat is within specification.
3. Monitor the **TP402** on the Pre Process Board and adjust the **VR9** so that the voltage Lsat is within specification.



1-9. SUB Voltage Confirmation

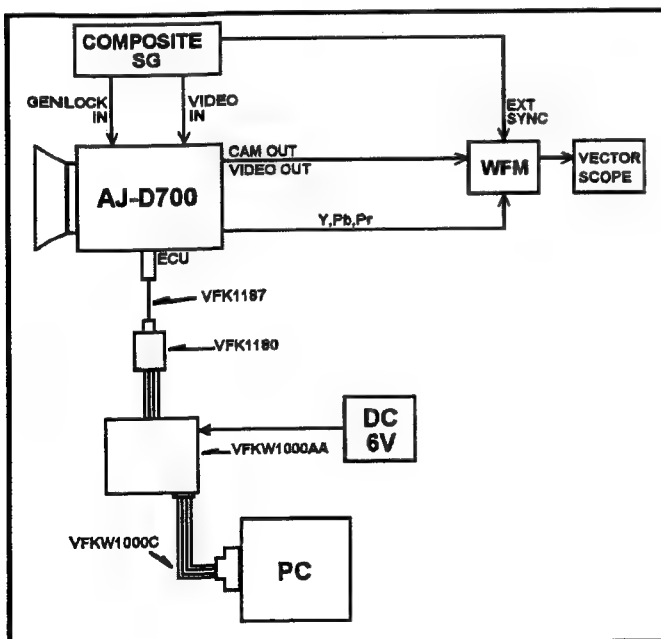
BOARD	Pulse
TEST	VIDEO OUT(75 Ω terminated)
ADJUST	VR7(R), VR8(G), VR9(B)
M.EQ	Color Monitor TV, 500W Halogen Lamp

1. Shoot the halogen lamp so that it is one tenth as large as the size of monitor.
2. Confirm that the blooming part has no color.
3. If that part has some color, do SUB Voltage Adjustment1 and 2.

2. Video Main and DSP

2-1. Initial Setting

1. Set the Camera Recorder as follows:
 AUTO W/B BAL:OFF
 SHUTTER :OFF
 GAIN :L
 OUTPUT :BAR
 WHITE BAL :PRE
2. Turn the power switches of the camera recorder and the EVR OFF.
3. Connect the EVR with ECU connector as shown in figure.
4. Turn the power of EVR ON and then camera recorder ON.
5. Pressing [SHIFT],[+] and [-] buttons in operation panel, set the MENU SW to SET.
6. Press the PAGE button to open the SERVICE ADJ. menu. Select EVR in ECU CONNECT. After setting turn the MENU OFF.
7. Execute the CAM_TOOL. EXE to start EVR program. (Refer to Setup of EVR Tool.)



2-2. D3.0V Adjustment

BOARD	Video Main
SPEC.	3.15V+0.05V / -0.00V
TEST	TP9
ADJUST	VR5 (Power)
MODE	REC
M.EQ	Digital Volt Meter

1. Adjust the VR5 on Power board so that the voltage at the TP9 is within specification.

2-3. Ref DC for A/D Adjustment

BOARD	DSP
SPEC.	2.0±0.001V
TEST	TP6
ADJUST	VR1
M.EQ	Digital Volt Meter

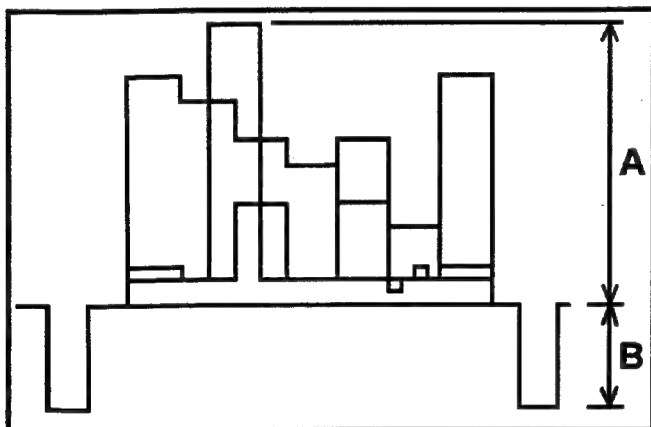
1. Confirm that the DC voltage at TP6 is within specification, and adjust the VR1 in case of need.

3. Encoder

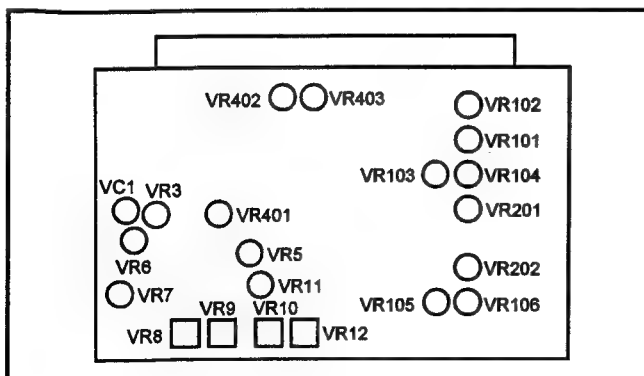
3-1. Y & SYNC Levels Adjustment 1

BOARD	Encoder
SPEC.	A:1400±28mV, B:600±12mV
TEST	TP104
ADJUST	VR102, VR101, SW101, SW102
MODE	Camera Bar
M.EQ	Waveform Monitor

1. Confirm that the **SW101** and **SW102** are turned **ON** as shown in figure.
2. Monitor the **TP104** and adjust the **VR102** so that the level A is within specification.
3. Adjust the **VR101** so that the level B is within specification.



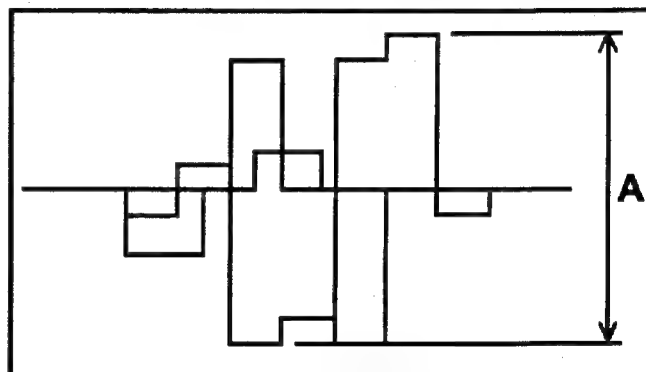
SW3101 SW3102



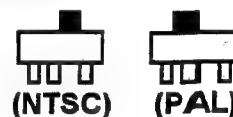
3-2. Pr Level Adjustment

BOARD	Encoder
SPEC.	1050±20mV
TEST	TP203
ADJUST	VR201, SW201
MODE	Camera Bar
M.EQ	Waveform Monitor

1. Set the **SW201** as shown in figure and adjust the **VR201** so that the level A is within specification.



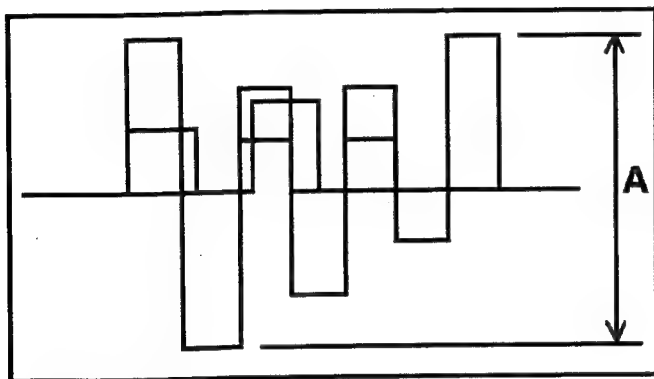
SW3201



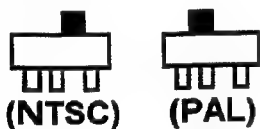
3-3. Pb Level Adjustment

BOARD	Encoder
SPEC.	1050±20mV
TEST	TP204
ADJUST	VR202, SW202
MODE	Camera Bar
M.EQ	Waveform Monitor

1. Set the **SW202** as shown in figure and adjust the **VR202** so that the level A is within specification.



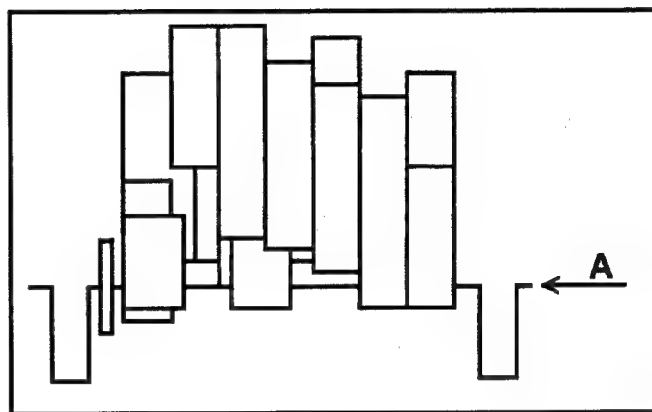
SW3202



3-4. CAM DC Adjustment

BOARD	Encoder
SPEC.	0±10mV
TEST	CAM OUT
ADJUST	VR11
MODE	Camera Bar
M.EQ	Waveform Monitor

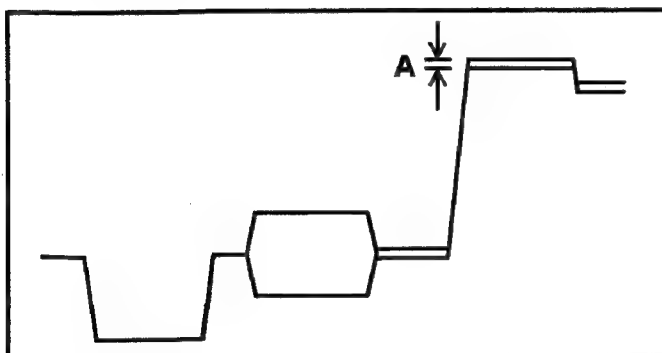
1. Adjust the **VR11** so that the DC voltage is within specification.



3-5. Carrier Balance Adjustment

BOARD	Encoder
SPEC.	A = Minimum
TEST	CAM OUT
ADJUST	VR8, VR9
MODE	Camera Bar
M.EQ	Waveform Monitor

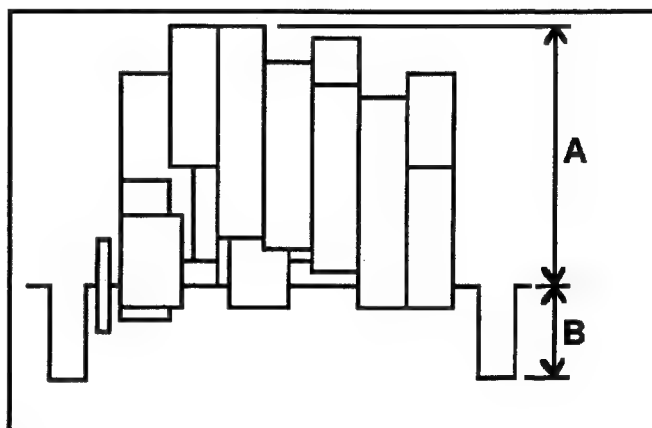
1. Adjust the **VR8** so that the width A is minimized.
2. Adjust the **VR9** as well as **VR8**.
3. Repeat the above steps until the width A is minimized.



3-6. Y & SYNC Levels Adjustment 2

BOARD	Encoder
SPEC.	A: $700 \pm 14\text{mV}$, B: $300 \pm 6\text{mV}$
TEST	CAM OUT
ADJUST	VR12, VR106, VR105
MODE	Camera Bar
M.EQ	Waveform Monitor

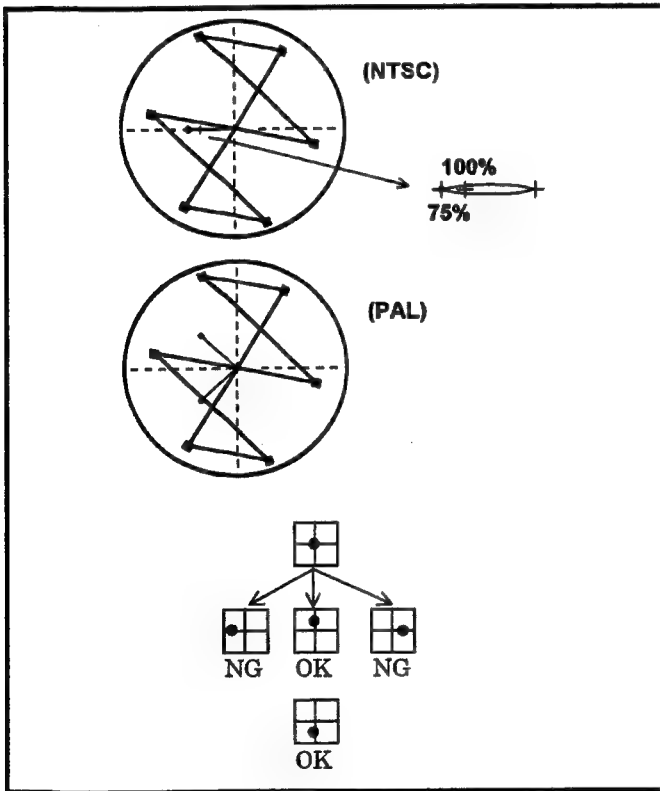
1. Set the **VR12** to **CENTER** position.
2. Adjust the **VR106** so that the level A is within specification.
3. Adjust the **VR105** so that the level B is within specification.



3-7. Burst Level & Vector Adjustment

BOARD	Encoder
TEST	CAM OUT
ADJUST	VR6, VR7, VC1, VR3, VR5
MODE	Camera Bar
M.EQ	Vector Scope

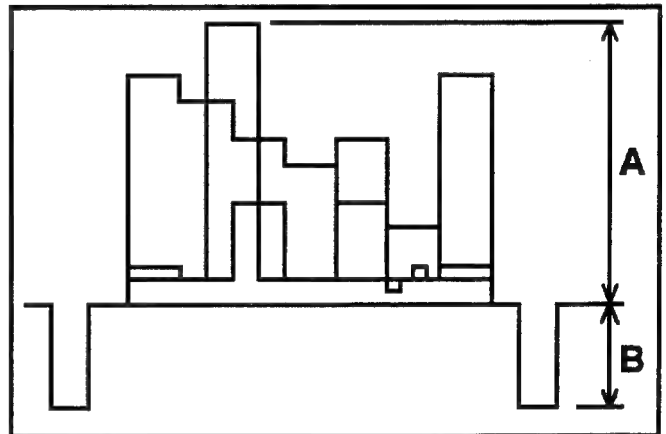
1. Adjust the **VC1** so that both burst levels are the same.
2. Adjust the **VR6** and **VR7** so that both bursts are fixed on scales.
3. Adjust the **VR3**, **VR5** and **VC1** so that all colour phase are fixed on scales



3-8. Video Out & Sync Adjustment

BOARD	Encoder
SPEC.	A:700±14mV, B:300±6mV
TEST	VIDEO OUT
ADJUST	VR104, VR103
MODE	Camera Bar
M.EQ	Waveform Monitor, EVR

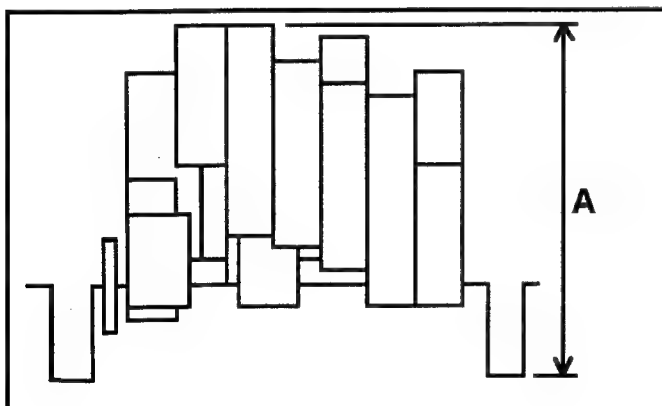
1. Press the [F2] and [0] in EVR and confirm that the EVR display indicates [1E][02][00].
2. Connect the Waveform Monitor with VIDEO OUT and adjust the **VR104** so that the level A is within specification.
3. Adjust the **VR103** so that the level B is within specification.



3-10. Mon Enc Level Adjustment

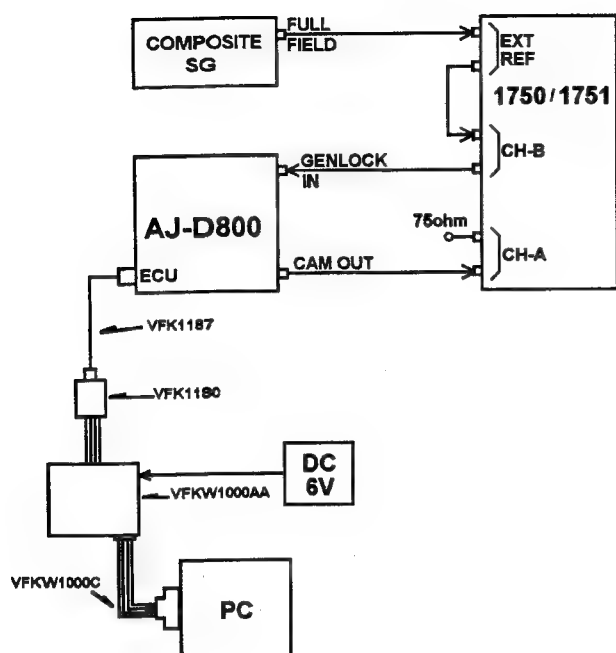
BOARD	Encoder
SPEC.	A: $1V \pm 20mV$
TEST	VIDEO OUT
ADJUST	VR401
MODE	Camera Bar
M.EQ	Waveform Monitor, EVR

1. Confirm that the EVR display indicates [1E][03][00] and then press the [→] to set the EVR to [1E][04][00]. Otherwise press the [CMD][1E][DATA][04] [ADR][00] [SET] to input [1E][04][00].
2. Connect the Waveform Monitor with VIDEO OUT and adjust the **VR401** so that the level A is within specification.
3. Set the **SW101** and **SW102** to OFF.



4. Sync

4-1. Connection



4-2. 4fsc VCO Adjustment

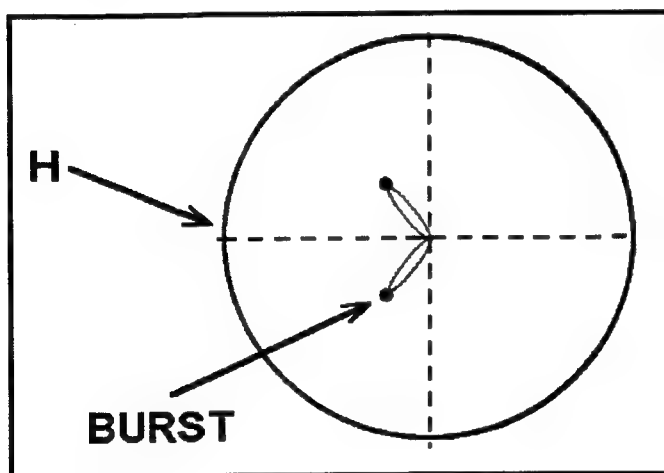
BOARD	Sync
SPEC.	17.734475MHz±10Hz
TEST	IC3018 10pin, TP11
ADJUST	VR12
MODE	Camera Bar
M.EQ	Oscilloscope, Frequency Counter

1. Disconnect GEN LOCK IN and adjust the VR12 so that the frequency at IC3018 10pin is within specification.
2. Input the composite signal to GEN LOCK IN and confirm that the DC voltage at TP11 is $2.5 \pm 0.5V$ and stable.

4-3. SCH Phase Adjustment

BOARD	Sync
SPEC.	$0 \pm 2^\circ$
TEST	CAM OUT
ADJUST	VR5
MODE	Camera Bar
M.EQ	SCH Meter

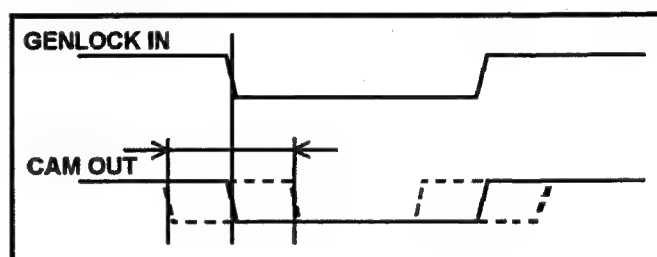
1. Disconnect GEN LOCK IN and set the SCH Meter to INT mode.
2. Adjust the **VR5** so that the SCH is within specification.



4-4. System Phase Adjustment 1

BOARD	Sync
TEST	CAM OUT
ADJUST	VR6
INPUT	Composite(RS-170A)
MODE	Camera Bar
M.EQ	Waveform Monitor, EVR

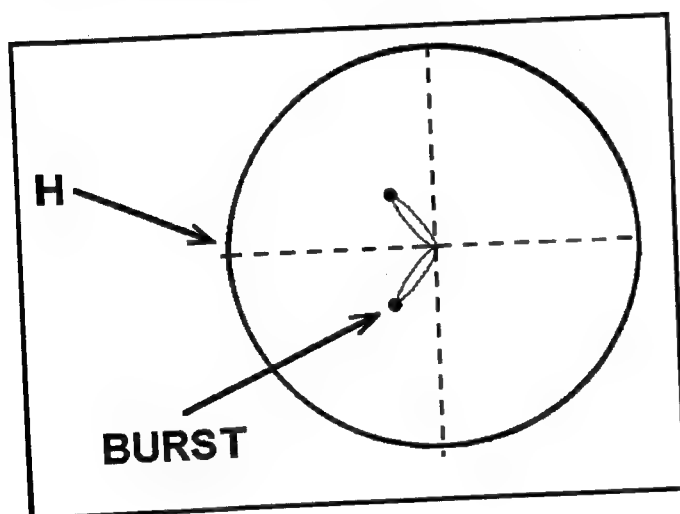
1. Set the Waveform Monitor to EXT mode.
2. Set the EVR to [1E][14][00].
3. Confirm that the composite signal is input to GEN LOCK IN.
4. Adjust the **VR6** so that CAM OUT and GEN LOCK IN are the same in sync phase.



4-5. System Phase Adjustment 2

BOARD	Sync
TEST	CAM OUT
ADJUST	VR6, VR7
INPUT	Composite(RS-170A)
MODE	Camera Bar
M.EQ	SCH Meter, EVR

1. Set the SCH Meter to EXT mode.
2. Adjust the **VR6** slightly so that CAM OUT and GEN LOCK IN are the same in H phase.
3. Set the EVR to [1E][1C][00].
4. Adjust the **VR7** so that CAM OUT and GEN LOCK IN are the same in burst phase.

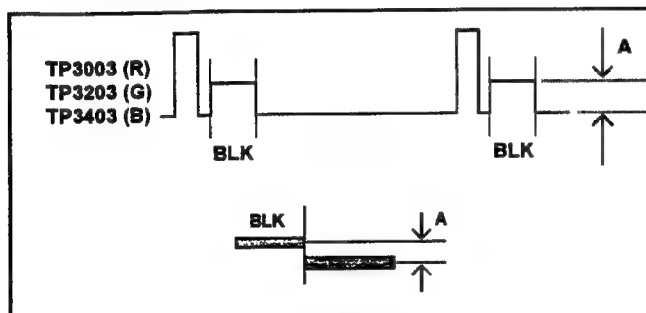


5. Pre Process

5-1. RGB Pedestal Adjustment

BOARD	Pre Process
SPEC.	$0 \pm 50\text{mV}$
TEST	TP3, TP203, TP403
ADJUST	VR1, VR201, VR401
F.NBR.	Close
M.EQ	Oscilloscope, EVR

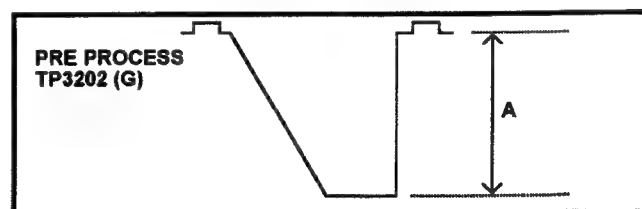
1. Press the [F2] and [2] keys in EVR or input [1E][20][00].
2. Monitor the TP3 and adjust the VR1(R PED) so that the blanking level is flat.
3. Monitor the TP203 and adjust the VR201(G PED) so that the blanking level is flat.
4. Monitor the TP403 and adjust the VR401(B PED) so that the blanking level is flat.
5. Set the EVR to [1E][21][00] and then execute the ABB function.



5-2. Test Signal Level Adjustment

BOARD	Pre Process
SPEC.	$666 \pm 10\text{mV}$
TEST	TP2(R), TP202(G), TP402(B)
ADJUST	VR15(R), VR13(G), VR14(B) (on the Sync board)
MODE	Test Signal
M.EQ	Oscilloscope, EVR

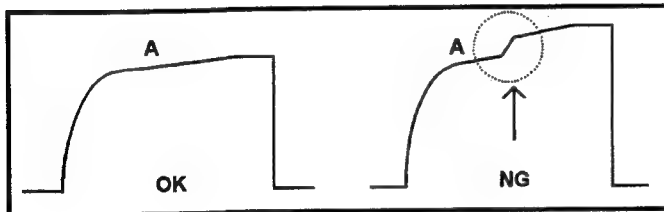
1. Set the EVR to [1E][22][00].
2. Monitor the TP2 and adjust the VR15 so that the level A is within specification.
3. Monitor the TP202 and adjust the VR13 so that the level A is within specification.
4. Monitor the TP402 and adjust the VR14 so that the level A is within specification.



5-3. A/D Input Level Adjustment 1

BOARD	Pre Process
TEST	VIDEO OUT(75 Ω terminated)
ADJUST	VR2(R), VR202(G), VR402(B)
MODE	Test Signal
M.EQ	Waveform Monitor, EVR

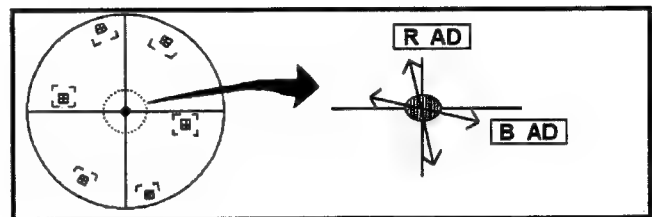
1. Set the EVR to [1E][23][00].(R ch is selected.)
2. Adjust the **VR2** to increase the A/D level and then stop adjusting just before the A portion is uneven.
3. Set the EVR to [1E][24][00].(G ch is selected.)
4. Adjust the **VR202** to increase the A/D level and then stop adjusting just before the A portion is uneven.
5. Set the EVR to [1E][25][00].(B ch is selected.)
6. Adjust the **VR402** to increase the A/D level and then stop adjusting just before the A portion is uneven.



5-4. A/D Input Level Adjustment 2

BOARD	Pre Process
TEST	CAM OUT(75 Ω terminated)
ADJUST	VR2(R), VR402(B)
MODE	Test Signal
M.EQ	Vector Scope

2. Set the Vector Scope Gain to MAX.
3. Fineadjust the **VR2** and **402** so that the dot is at the center of the vector scope.



5-5. Pedestal Tracking Adjustment

BOARD	Pre Process
TEST	CAM OUT(75 Ω terminated)
ADJUST	VR3(R), VR403(B)
F.NBR.	Close
M.EQ	Vector Scope, EVR

1. Pressing [SHIFT],[+] and [-] buttons in operation panel, set the MENU SW to SET.
2. Press the PAGE button to open the following menus and set to **zero**.
 LEVEL 4/6 :R,G,B FLARE
 :R,B GAMMA
 SERVICE ADJ. :R,B GAMMA
3. Set the EVR to [1E][28][00].
4. Set the Vector Scope to Gain:MAX.
5. Adjust the **VR3** and **VR403** so that the dot is at the center of the vector scope.
6. Press [→] key to set to [1E][29][00]. Confirm that the dot is still at the center of the vector scope.
7. If not, repeat 3,5 and 6.

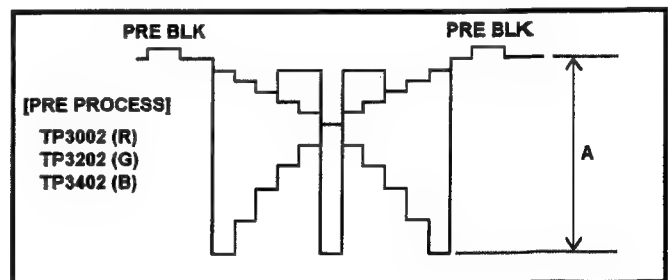
Note.

1. Adjust the VR3 to move vertically and the VR403 horizontally.

5-6. Sample & Hold Level Adjustment 1

BOARD	Pre Process
SPEC.	666 \pm 10mV
TEST	TP2, TP202, TP402
ADJUST	VR101, VR201, VR301(CDS Board)
F.NBR.	F8+1/3(2000LUX), Optical Filter:1
CHART	Grayscale Chart(3200 * K)
M.EQ	Oscilloscope,Lux Meter,Color Pyrometer

1. Set as follows :
 CAM/BAR : CAM(AGAM:ON)
 AWB : PRESET
 GAIN : 0dB
2. Don't use an extender of lens.
3. Set the EVR to [1E][27][00].
4. Monitor the **TP2** and adjust the **VR101(R LVL)** so that the level A is within specification.
5. Monitor the **TP202** and adjust the **VR201(G LVL)** so that the level A is within specification.
6. Monitor the **TP402** and adjust the **VR301(B LVL)** so that the level A is within specification.



5-7. Fixed Pattern Noise Confirmation

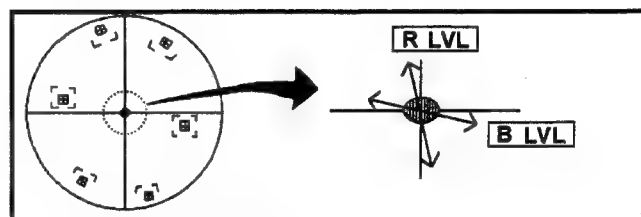
BOARD	Pulse
TEST	CAM OUT
ADJUST	VR3(CCD Pulse)
F.NBR.	Close
M.EQ	Monitor TV, EVR

1. Set the EVR to [1E][36][00](+18dB).
2. Execute the ABB function.
3. Confirm that there is no fixed pattern noise vertically with lens closed.
4. If there is, set the EVR to [1E][37][00] and then adjust the **VR3**, remember the original position of **VR3**, so that the noise is minimized. (If the noise is not decreased, set **VR3** to the original position again.)

5-8. Sample & Hold Level Adjustment 2

BOARD	CDS
TEST	CAM OUT
ADJUST	VR101(R LVL), VR301(B LVL)
F.NBR.	F8 (2000LUX), Optical Filter:1
CHART	Grayscale Chart
M.EQ	Vector Scope, Lux Meter, Color Pyrometer

1. Set the EVR to [1E][27][00].
2. Set the Vector Scope to Gain:MAX.
3. Adjust the **VR101** and **301** slightly so that the dot is at the center of the vector scope.



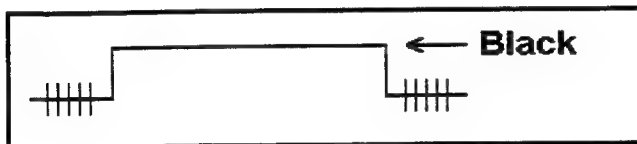
5-9. CDS DC Adjustment

BOARD	CDS
SPEC.	$150 \pm 50 \text{mVdc}$
TEST	TP103(R), TP203(G), TP303(B)
ADJUST	VR102(R), VR202(G), VR302(B)
F.NBR.	Close
M.EQ	Oscilloscope

1. Monitor the **TP103** and adjust the **VR102** so that the black level is within specification.
2. Monitor the **TP203** and adjust the **VR202** so that the black level is within specification.
3. Monitor the **TP303** and adjust the **VR302** so that the black level is within specification.

Note.

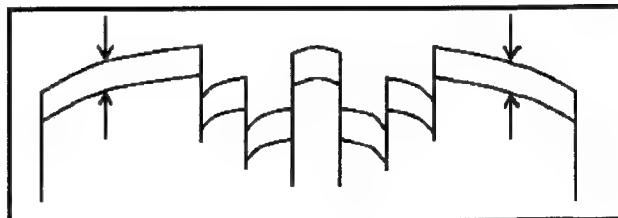
1. Monitor the center of the carrier because there is carrier on the black level.



5-10. Carrier Level Adjustment

BOARD	Pulse
TEST	CAM OUT
ADJUST	VR7(SUB R), VR9(SUB B)
CHART	Grayscale Chart
M.EQ	Waveform Monitor, EVR

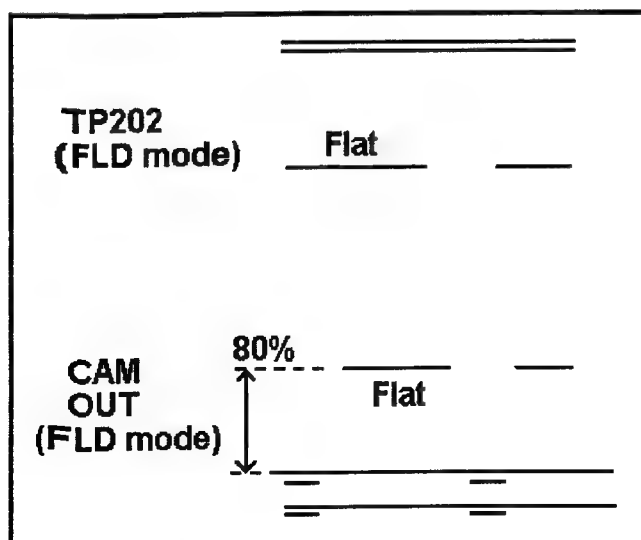
1. Set the EVR to [1E][3A][00].
2. Select PRESET position in AWB mode.
3. Execute the ABB function.
4. Open the iris until upper three steps are saturated in grayscale waveform as shown in figure.
5. Adjust the **VR7** and **VR9** alternately so that the carrier level is minimized. (less than 6IRE)
6. After the adjustment, confirm the CDS DC Adjustment.



5-11. Analog White Shading

BOARD	Pre Process
TEST	CAM OUT(75 Ω terminated), TP202
ADJUST	EVR
M.EQ	Waveform Monitor, Vector Scope, EVR Lens(Built-in Extender) Light Box(Spherical Type)

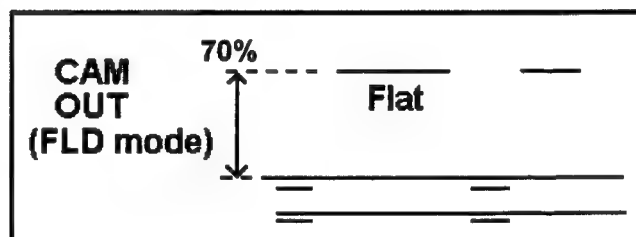
1. Set the EVR to [1E][2E][00].
2. Open the iris until the peak level is 80% in CAM OUT **without extender**.
3. Select A position in AWB mode and execute the AWB function.
4. Execute the ABB function.
5. Adjust the iris to 80% again until the peak level is 80% and execute the AWB function.
6. Set the EVR to [0E][80][0E].
7. Monitor the **TP202** in waveform monitor(field mode) and press [→] or [←] key in EVR so that the waveform is flat.
8. Input [1E][2F][00] in EVR to execute the analog white shading. (While executing, 'ACTIVE' is displayed on EVF.)
9. Execute the AWB function.
10. Monitor the **TP202** in vector scope and confirm that the dot is round and around the center of the scope.
11. Open the iris until the peak level is 80% in CAM OUT **with extender**.
12. Execute the AWB function and repeat 6 to 10.



5-12. Digital White Shading

TEST	CAM OUT(75 Ω terminated)
ADJUST	EVR
M.EQ	Waveform Monitor, Vector Scope, EVR Lens(Built-in Extender) Light Box(Spherical Type)

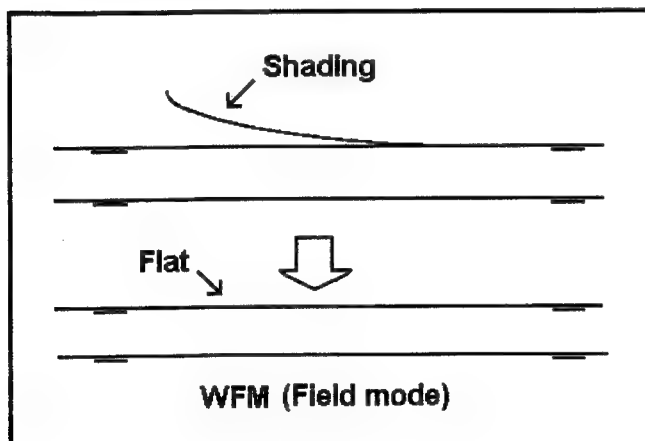
1. Set the EVR to [1E][30][00].
2. Open the iris until the peak level is 70% in CAM OUT **without extender**.
3. Select A position in AWB mode and execute the AWB function.
4. Input [1E][31][00] in EVR to execute the digital white shading. (While executing, '*' or 'ACTIVE' is displayed on EVF.)
5. Execute the AWB function.
6. Monitor the CAM OUT in waveform monitor(field mode) and confirm that the waveform is flat.
7. Monitor the CAM OUT in vector scope and confirm that the dot is round and around the center of the scope.



5-13. Auto Dark Shading

TEST	CAM OUT(75 Ω terminated)
ADJUST	EVR
F.NBR.	Close
M.EQ	Waveform Monitor, EVR

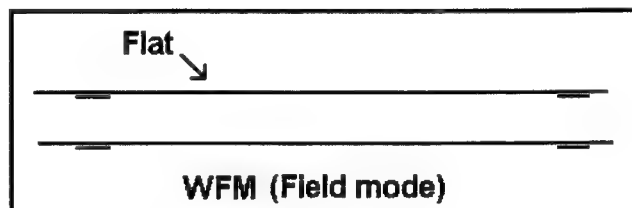
1. Set AWB position to PRE.
2. Execute the ABB function.
3. Input [1E][2A][00] in EVR to confirm executing the auto dark shading.
1. Monitor the CAM OUT in waveform monitor(field mode) and confirm that the waveform is made flat.
2. Confirm that the shading is completed and waveform is flat.



5-14. Digital Dark Shading

TEST	CAM OUT(75 Ω terminated)
ADJUST	EVR
F.NBR.	Close
M.EQ	Waveform Monitor, EVR

1. Set AWB position to PRE.
2. Input [1E][2B][00] in EVR.
3. Input [1E][2D][00] in EVR to execute the digital dark shading. (While executing, 'ACTIVE' is displayed on EVF.)
4. Monitor the CAM OUT in waveform(field mode) monitor and confirm that the waveform is flat.



5-15. Flare Correction Adjustment

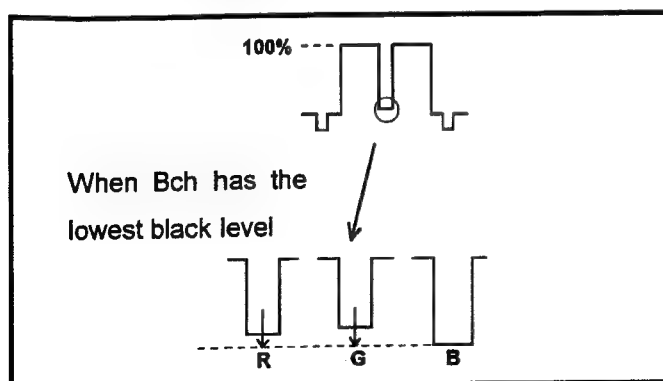
TEST	VIDEO OUT
ADJUST	EVR
F.NBR.	(2000LUX)
CHART	Flare chart
M.EQ	Waveform Monitor, EVR

1. Open the iris until white level is 80%.
2. Execute AWB function in the A ch and then ABB function.
3. Adjust the iris again and execute AWB function in the A ch.
4. Open the iris until white level is 100%.
5. Open the iris 1.5 steps more, for example, F8 to F5.6-1/2.
6. Input [1E][32][00] in EVR to select Rch and measure the black level.
7. Input [1E][33][00] in EVR to select Gch and measure the black level.
8. Input [1E][34][00] in EVR to select Bch and measure the black level.
9. Don't adjust the channel which has the lowest black level.
10. Adjust the black levels of other two channels to the level of the channel mentioned above No.9 with EVR. The ways to change the black levels are as shown below.

(R ch) After inputting [1E][32][00] and then [0E][00][0B], press [→] or [←] key.

(G ch) After inputting [1E][33][00] and then [0E][00][0C], press [→] or [←] key.

(B ch) After inputting [1E][34][00] and then [0E][00][0D], press [→] or [←] key.



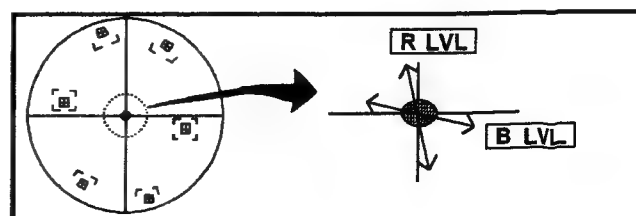
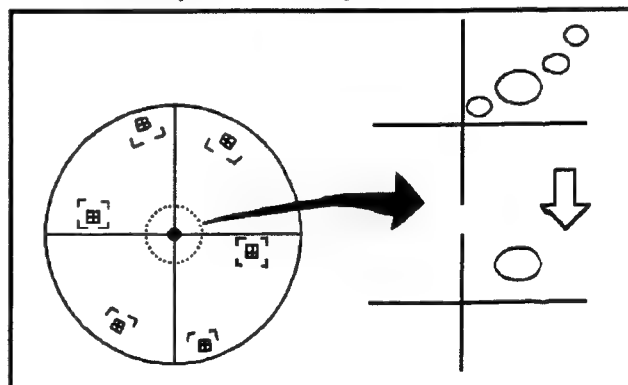
5-16. R γ & B γ Adjustment

BOARD	CDS
TEST	CAM OUT(75 Ω terminated)
ADJUST	VR101(R LVL), VR301(B LVL), EVR
F.NBR.	(2000LUX)
CHART	Grayscale Chart(3200 ° K)
M.EQ	Vector Scope, Lux Meter, Color Pyrometer, EVR

1. Set the Vector Scope to Gain:MAX.
2. Input [1E][27][00] in EVR.
3. Select PRESET position in AWB mode.
4. Execute the ABB function.
5. Open the iris until the peak level is 100% in CAM OUT **without extender**. Confirm that the iris No. is F8 to F8-1/2.
6. When the dot is divided, adjust the R γ and B γ with EVR according to the following procedure so that the dots are joined.
 - R γ : After inputting [0E][00][09] in EVR, press the [→] or [←] to adjust.
 - B γ : After inputting [0E][00][0A] in EVR, press the [→] or [←] to adjust.
7. Confirm that the dot is at the center of the vector scope. If not, adjust the VR101(R LVL) and VR301(B LVL).

Note.

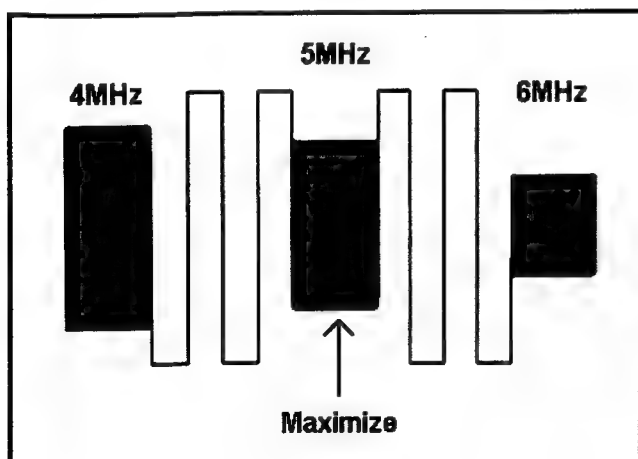
1. Vertically divided : Adjust R γ
Horizontally divided : Adjust B γ



5-17. Modulation Adjustment

BOARD	Pulse, Sync
SPEC.	MAX at 5MHz
TEST	CAM OUT (75 Ω terminated)
ADJUST	VR14(MOD)(Pulse) VR201, VR202, VR203(Sync)
CHART	Immega Chart
M.EQ	Waveform Monitor, EVR

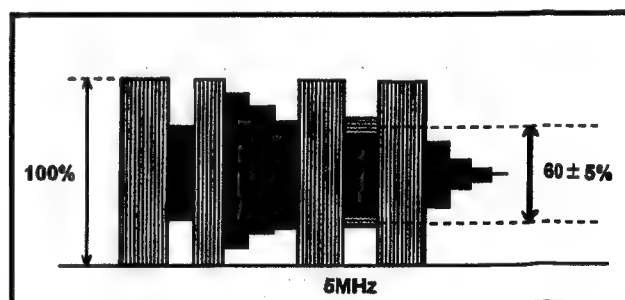
1. Turn the **VR14** fully counterclockwise.
2. Set Gain SW to L.
3. Press the [F2] and [3] keys to set the EVR to [1E][35][00].
4. Open the iris until white level is 80%.
5. Execute AWB function in the A ch.
6. Open the iris until white level is 90%.
7. Turn the **VR201**(Sync) counterclockwise fully.
8. Turn the **VR201** clockwise until the level at 5MHz is maximized first.
9. Set shutter to 1/2000.
10. Set Gain SW to M.
11. Repeat from 6 to 8 with **VR202**(Sync).
12. Set Gain SW to H.
13. Repeat from 6 to 8 with **VR203**(Sync).
14. Set shutter OFF and Gain L.



5-18. Modulation Confirmation

BOARD	Pulse
SPEC.	60 \pm 5% at 5MHz
TEST	CAM OUT (75 Ω terminated)
ADJUST	VR2(CLMP PH)(Pulse)
CHART	Immega Chart
M.EQ	Waveform Monitor, EVR

1. Press the [F2] and [3] keys to set the EVR to [1E][35][00].
 2. Open the iris until white level is 80%.
 3. Execute AWB function in the A ch.
 4. Open the iris F5.6~F4.
 5. Confirm that the level at 5MHz is within specification.
 6. If not, fineadjust the **VR2**. When **VR2** is adjusted, open the iris until white level is 80% and execute AWB function in the A ch.
 7. Confirm that the level at 5MHz is within specification. (60 \pm 10% is accepted only when **VR2** is fully-turned.)
 8. When **VR2** is adjusted, repeat from Modulation Adjustment.
1. Finally set the EVR to [1E][3A][00].



6-1.Video I/F

6-1. Audio VCO Adjustment

BOARD	Video Main
SPEC.	$A=B \pm 5\%$
TEST	TP8 (VCO ADJ.)
ADJUST	EVR
INPUT	Internal Color Bar
MODE	EE
M.EQ	Oscilloscope

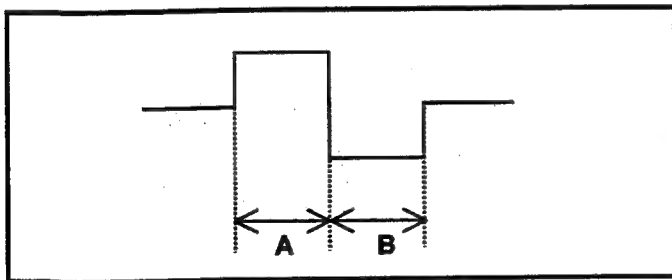
Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:
 PAGE : MAIN FUNCTION
 REC SIGNAL :CAM (NTSC only)
 PAGE : SERVICE ADJ.
 ECU CONNECT :EVR
 IF ADJ. :OFF

EVR Setting

CMD : 02DATA : 82 ADR : 04

1. Press [→] or [←] key in EVR so that A equals to B.



6-2. PLL POS Adjustment

BOARD	Video I/F
SPEC.	$B=A \pm 10\%$
TEST	TP201(HP), TP202(HWIN)
ADJUST	EVR
INPUT	Internal Color Bar
MODE	EE
M.EQ	Oscilloscope

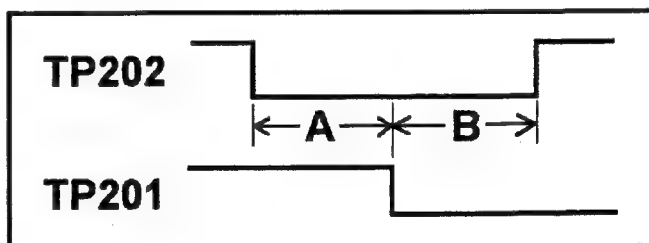
Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:
 PAGE : MAIN FUNCTION
 REC SIGNAL :CAM (NTSC only)
 PAGE : SERVICE ADJ.
 ECU CONNECT :EVR
 IF ADJ. :OFF

EVR Setting

CMD : 02DATA : 77 ADR : 1B

1. Press [→] or [←] key in EVR so that A equals to B.



6-3. ENC Level Adjustment

BOARD	Video I/F
SPEC.	A: $700 \pm 15\text{mV}$, B: $300 \pm 4\text{mV}$
TEST	VIDEO OUT (75Ω terminated)
ADJUST	VR602, EVR
MODE	PLAY
TAPE	VFM3680KM (0 ~ 10min)
M.EQ	Waveform Monitor

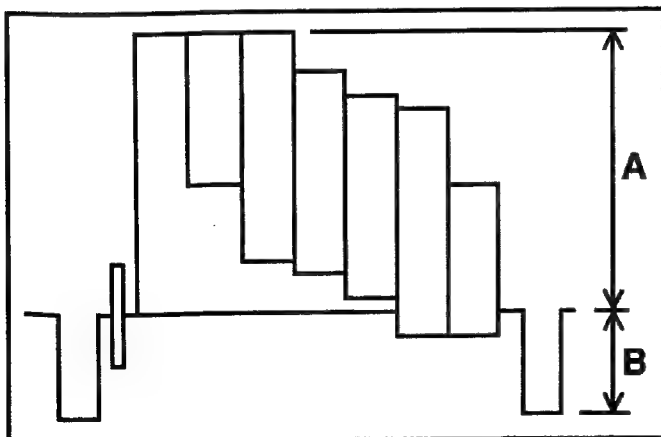
Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:
PAGE : SERVICE ADJ.
ECU CONNECT :EVR
IF ADJ. :OFF

EVR Setting

CMD : 02DATA : 86 ADR : 17

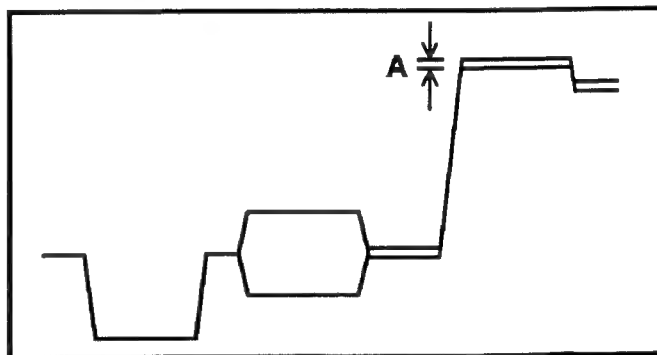
1. Press [→] or [←] key in EVR so that the level A is within specification.
2. Adjust the VR602 so that the level B is within specification.



6-4. Carrier Balance Adjustment

BOARD	Video I/F
SPEC.	$A \leq 10\text{mV}$
TEST	VIDEO OUT (75Ω terminated)
ADJUST	VR609 (PR), VR610 (PB)
MODE	PLAY
TAPE	VFM3680KM (0 ~ 10min)
M.EQ	Waveform Monitor, Vector Scope

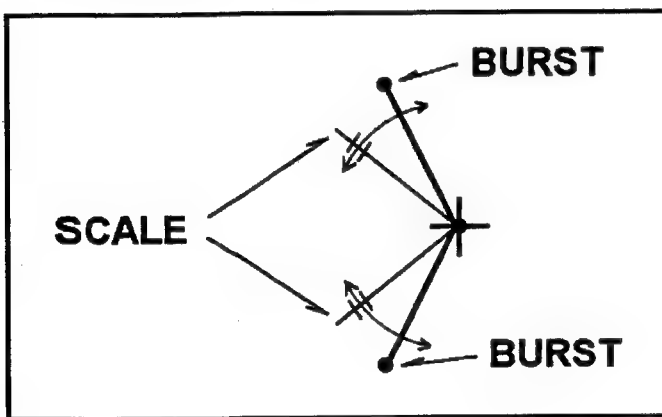
1. Adjust the VR609 and VR610 so that the dot is at the center of the vector scope.
2. Adjust the VR609 so that the width A is minimized.
3. Adjust the VR610 as well as VR609.
4. Repeat the above steps until the width A is within specification.



6-5. Burst Phase Adjustment

BOARD	Video I/F
TEST	VIDEO OUT (75 Ω terminated)
ADJUST	VR608
MODE	PLAY
TAPE	VFM3680KM (0 ~ 10min)
M.EQ	Vector Scope

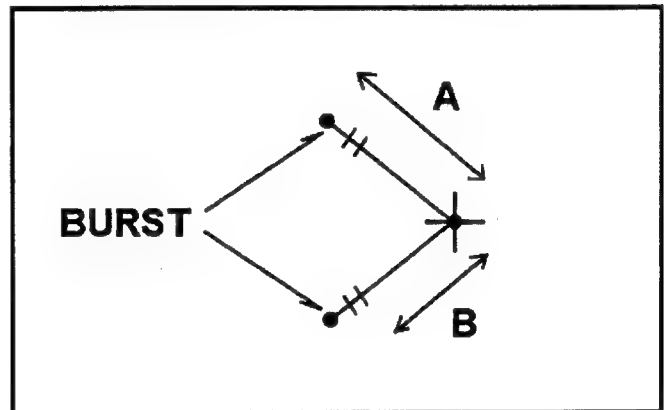
1. Adjust the **VR608** so that the burst vectors are fixed on scale.



6-6. QUAD Adjustment

BOARD	VIDEO I/F
TEST	VIDEO OUT (75 Ω terminated)
ADJUST	VC601
MODE	PLAY
TAPE	VFM3680KM (0 ~ 10min)
M.EQ	Vector Scope

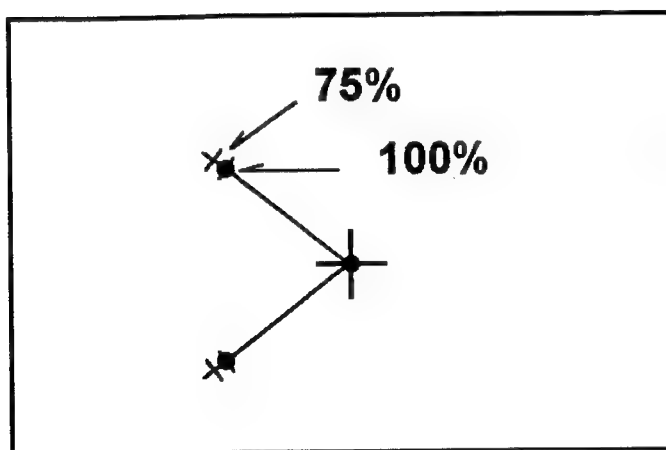
1. Adjust the **VC601** so that the burst level **A** and **B** are the same.



6-7. Burst Level Adjustment

BOARD	Video I/F
SPEC.	100%
TEST	VIDEO OUT (75Ω terminated)
ADJUST	VR607
MODE	PLAY
TAPE	VFM3680KM (0 ~ 10min)
M.EQ	Vector Scope

1. Adjust the **VR607** so that the burst levels are within specification.



6-8. Chroma Level Adjustment

BOARD	Video I/F
TEST	VIDEO OUT (75Ω terminated)
ADJUST	VR604, EVR
MODE	PLAY
TAPE	VFM3680KM (0 ~ 10min)
M.EQ	Vector Scope

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:

PAGE : SERVICE ADJ.

ECU CONNECT :EVR

IF ADJ. :OFF

EVR Setting

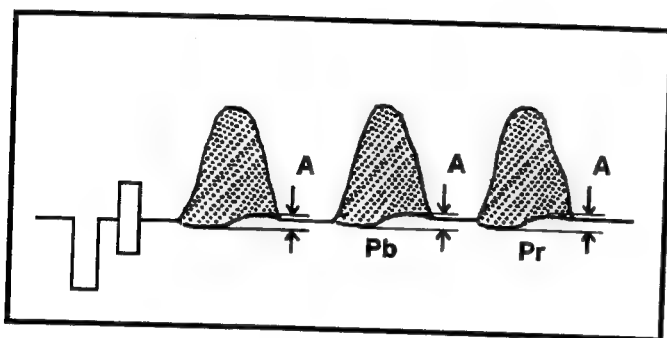
CMD : 02DATA : 86 ADR : 16

1. Press [→] or [←] key in EVR so that the R dot is in the marker of the vector scope.
2. If necessary, fineadjust the **VC601**.
3. Adjust the **VR604** so that each dot is in the marker of the vector scope.

6-9. Y/C Timing Adjustment

BOARD	Video I/F
TEST	VIDEO OUT (75 Ω terminated)
ADJUST	VR603 (PB), VR605 (PR)
MODE	PLAY
TAPE	VFM3680KM (26 ~ 30min)
M.EQ	Waveform Monitor

1. Adjust the **VR603** and **VR605** so that the portion A is flat.



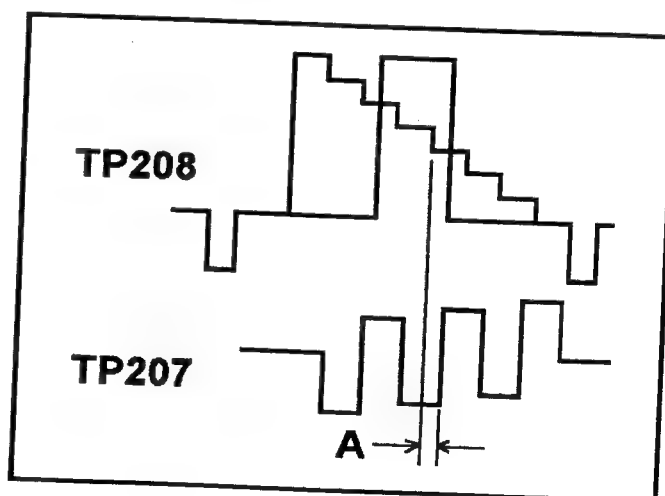
6-10. Pb Timing Adjustment

BOARD	Video I/F
TEST	TP207(AD PB), TP208(AD Y)
ADJUST	VR107(PB TMG)
INPUT	Color Bar, Internal Color Bar
MODE	EE
M.EQ	Oscilloscope

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:
 PAGE : MAIN FUNCTION
 REC SIGNAL :CAM (NTSC only)
 PAGE : SERVICE ADJ.
 ECU CONNECT :EVR
 IF ADJ. :OFF

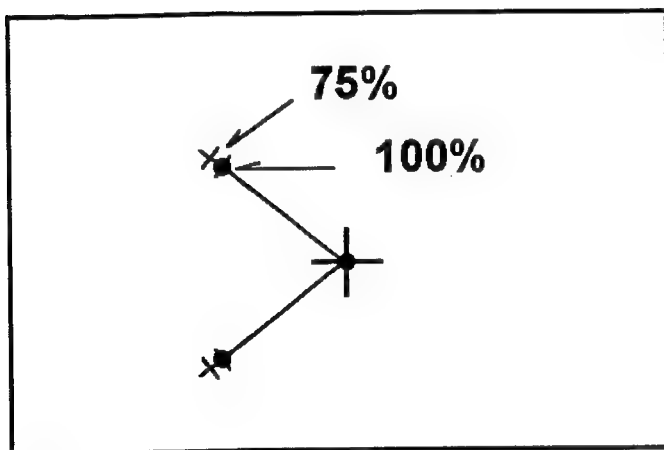
1. Adjust the **VR107** so that the phase difference A between **TP207** and **TP208** is within $0 \pm 20\text{ns}$.
2. (NTSC only) Select **VIDEO** in the menu of REC SIGNAL (FUNCTION 3/5).
3. (NTSC only) Confirm that the phase difference A is $0 \pm 50\text{ns}$.



6-7. Burst Level Adjustment

BOARD	Video I/F
SPEC.	100%
TEST	VIDEO OUT (75 Ω terminated)
ADJUST	VR607
MODE	PLAY
TAPE	VFM3680KM (0 ~ 10min)
M.EQ	Vector Scope

1. Adjust the **VR607** so that the burst levels are within specification.



6-8. Chroma Level Adjustment

BOARD	Video I/F
TEST	VIDEO OUT (75 Ω terminated)
ADJUST	VR604, EVR
MODE	PLAY
TAPE	VFM3680KM (0 ~ 10min)
M.EQ	Vector Scope

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:

PAGE : SERVICE ADJ.

ECU CONNECT :EVR

IF ADJ. :OFF

EVR Setting

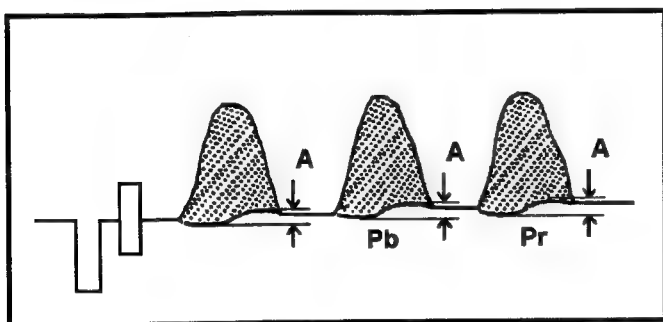
CMD : 02DATA : 86 ADR : 16

1. Press [→] or [←] key in EVR so that the R dot is in the marker of the vector scope.
2. If necessary, fineadjust the **VC601**.
3. Adjust the **VR604** so that each dot is in the marker of the vector scope.

6-9. Y/C Timing Adjustment

BOARD	Video I/F
TEST	VIDEO OUT (75 Ω terminated)
ADJUST	VR603 (PB), VR605 (PR)
MODE	PLAY
TAPE	VFM3680KM (26 ~ 30min)
M.EQ	Waveform Monitor

1. Adjust the **VR603** and **VR605** so that the portion A is flat.



6-10. Pb Timing Adjustment

BOARD	Video I/F
TEST	TP207(AD PB), TP208(AD Y)
ADJUST	VR107(PB TMG)
INPUT	Color Bar, Internal Color Bar
MODE	EE
M.EQ	Oscilloscope

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:

PAGE : MAIN FUNCTION

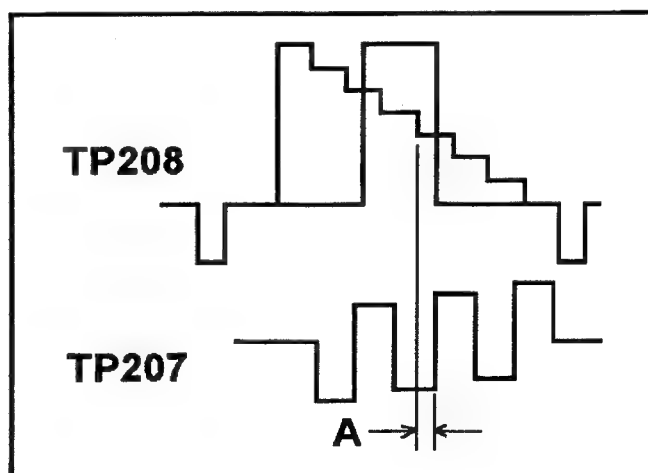
REC SIGNAL :CAM (NTSC only)

PAGE : SERVICE ADJ.

ECU CONNECT :EVR

IF ADJ. :OFF

1. Adjust the **VR107** so that the phase difference A between **TP207** and **TP208** is within $0 \pm 20\text{ns}$.
2. (NTSC only) Select **VIDEO** in the menu of REC SIGNAL (FUNCTION 3/5).
3. (NTSC only) Confirm that the phase difference A is $0 \pm 50\text{ns}$.



6-11. Pr Timing Adjustment

BOARD	Video I/F
TEST	TP208(AD Y), TP212(AD PR)
ADJUST	VR111(PR TMG)
INPUT	Color Bar, Internal Color Bar
MODE	EE
M.EQ	Oscilloscope

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:

PAGE : MAIN FUNCTION

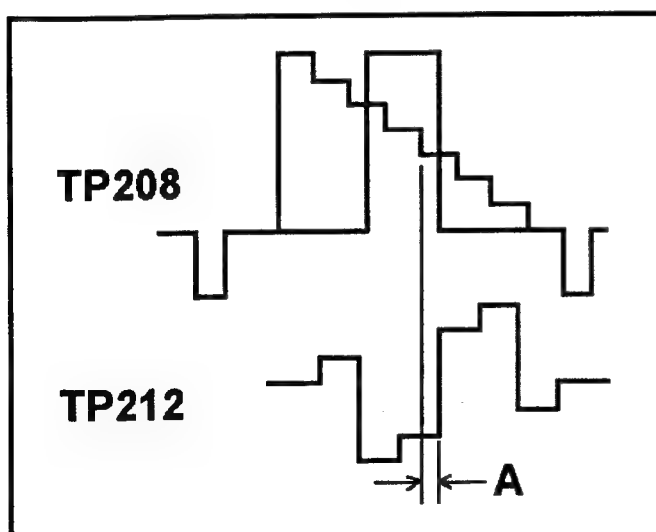
REC SIGNAL :CAM (NTSC only)

PAGE : SERVICE ADJ.

ECU CONNECT :EVR

IF ADJ. :OFF

1. Adjust the VR111 so that the phase difference A between TP212 and TP208 is within $0 \pm 20\text{ns}$.
2. (NTSC only) Select VIDEO in the menu of REC SIGNAL (FUNCTION 3/5).
3. (NTSC only) Confirm that the phase difference A is $0 \pm 50\text{ns}$.



6-12. Y Clamp DC Adjustment

BOARD	Video I/F
TEST	TP301(Y PED)
ADJUST	EVR
INPUT	Internal Color Bar
MODE	EE
M.EQ	Oscilloscope

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:

PAGE : MAIN FUNCTION

REC SIGNAL :CAM (NTSC only)

PAGE : SERVICE ADJ.

ECU CONNECT :EVR

IF ADJ. :OFF

EVR Setting

CMD : 02DATA : 73 ADR : 11

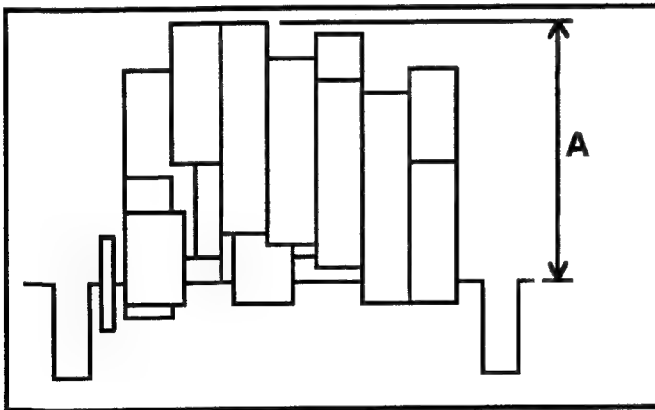
1. Monitor the TP301 and press [→] or [←] key in EVR so that the level is about 5 Vdc(flat).
2. If flat 5Vdc does not appear, adjust high level of pulse to 5V.

6-13. Y Level Adjustment

BOARD	Video I/F
SPEC.	700±15mV
TEST	VIDEO OUT
ADJUST	VR104(Y LEV)
INPUT	Internal Color Bar
MODE	EE
M.EQ	Waveform Monitor

Menu Setting

- Open the operation panel.
- Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
- Set as follows:
 PAGE : MAIN FUNCTION
 REC SIGNAL :CAM (NTSC only)
 PAGE : SERVICE ADJ.
 ECU CONNECT :EVR
 IF ADJ. :ON
- Monitor the VIDEO OUT and adjust the **VR104** so that the level A is within specification.



6-14. Vector Adjustment (Camera)

BOARD	Video I/F
TEST	VIDEO OUT
ADJUST	VR108(PB LEV), VR112(PR LEV), EVR
INPUT	Internal Color Bar
MODE	EE
M.EQ	Vector Scope

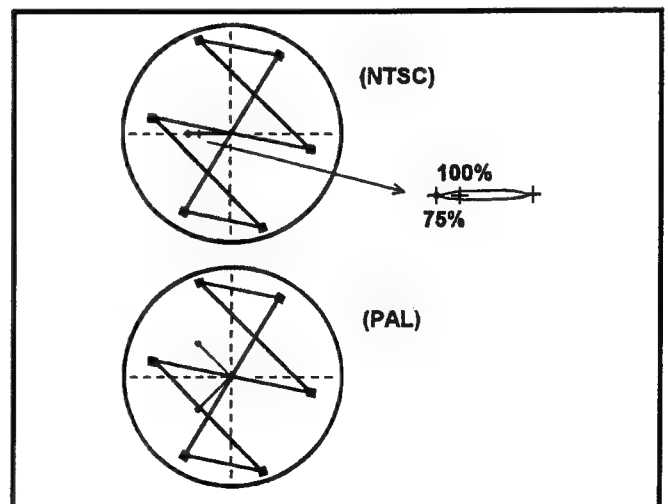
Menu Setting

- Open the operation panel.
- Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
- Set as follows:
 PAGE : MAIN FUNCTION
 REC SIGNAL :CAM (NTSC only)
 PAGE : SERVICE ADJ.
 ECU CONNECT :EVR
 IF ADJ. :ON
 PAGE : LEVEL 3/6
 SET UP :7.5% (NTSC only)

EVR Setting

CMD : 02DATA : 63 ADR : 12
 CMD : 02DATA : 63 ADR : 13

- Adjust the **VR108** and **VR112** and press [→] or [←] key in EVR so that the vector center is at the center of the vector scope and each dot is in the marker of the vector scope.



7. Servo

7-1. Reel Torque Adjustment

BOARD	Servo
SPEC.	$20 \pm 2\text{mV}$
TEST	TP301(S), TP302(T), TG300(GND)
ADJUST	VR501(T), VR502(S)
MODE	PLAY
M.EQ	Digital Volt Meter

1. Confirm the power off and make a short-circuit between **TP116** and **TP505**.
2. Turn the power ON and then set the tube* to cover the sensor LED and place the unit in no tape loading mode.
3. Hold the S-Reel by hand and press the PLAY key.
4. Adjust the **VR502** so that the **TP301**(for S Reel) is within specification.
5. Hold the T-Reel by hand and press the PLAY key.
6. Adjust the **VR501** so that the **TP302**(for T Reel) is within specification.
7. Make an open-circuit between **TP200** and **TP505**.

Note.

1. Make a black tube* by yourself.

7-2. Tension Offset Adjustment

BOARD	Servo
SPEC.	$2.5 \pm 0.1\text{V}$
TEST	TP402
ADJUST	VR402
MODE	EJECT
M.EQ	Digital Volt Meter

1. Adjust the **VR402** so that the **TP402** voltage is within specification.

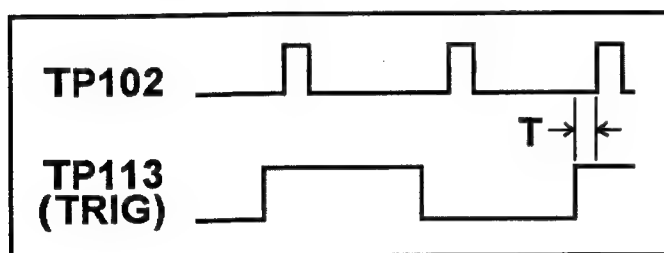
Note.

1. Make a black tube* by yourself.

7-3. PG Shifter Adjustment

BOARD	Servo
SPEC.	$126.3 \pm 2.5 \mu s$
TEST	TP113, TP102
ADJUST	VR101
MODE	PLAY
TAPE	Color Bar
M.EQ	Oscilloscope

1. Adjust the **VR101** so that the T is within specification. (Trigger : TP113)



8. RF

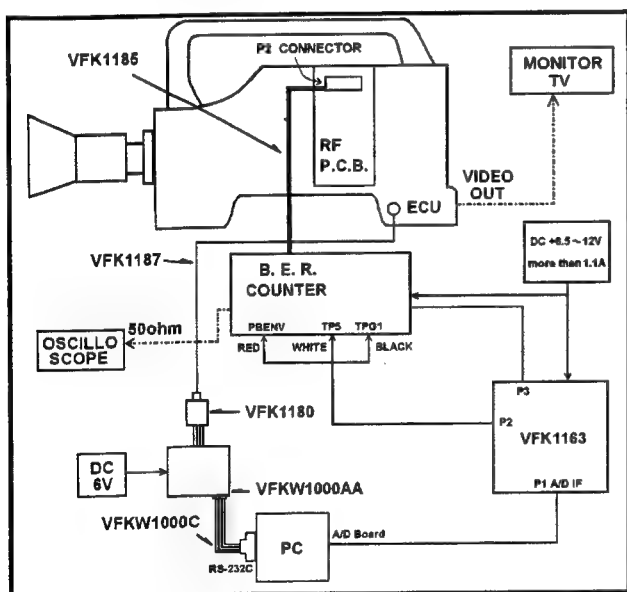
8-1. Initial Setting(Auto)

Note. : Following procedures are required when using RF Adjustment Tool (VFK1163). Refer to Manual Adjustment for procedures with spectrum analyzer.

1. Connect the Camera Recorder, personal computer and tools as shown in figure.
2. IC clip of VFK1185 is not connected.

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:
PAGE : SERVICE ADJ.
ECU CONNECT :EVR
CONCEAL :OFF
4. After setting turn the menu OFF.



8-2. PLL VCO Adjustment

BOARD	RF
SPEC.	A=B=2.0±0.1V
TEST	TP506, TP507
ADJUST	EVR
MODE	PLAY
TAPE	Color Bar
M.EQ	Oscilloscope, EVR

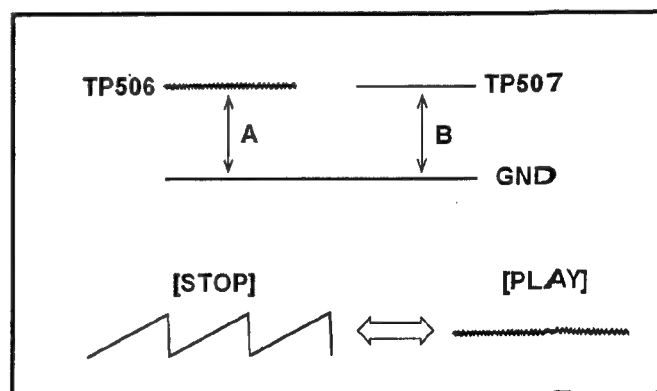
Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:
PAGE : SERVICE ADJ.
SERVO MODE :CTL
4. After setting turn the menu OFF.

EVR Setting

CMD : 02 DATA : 7A ADR : 0B

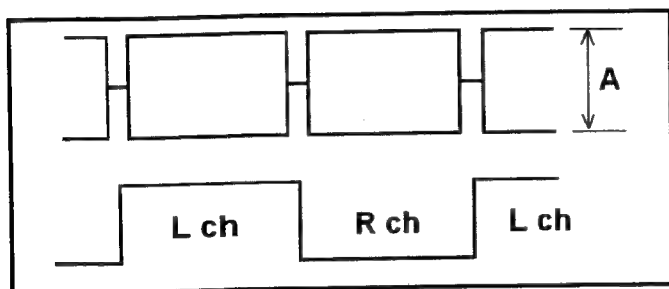
1. Monitor the TP506 and 507 in the DC mode.
2. Press the [→] or [←] key in EVR so that the levels A and B are the same.
3. After adjusting change SERVO MODE to ATF.



8-3. R/P Envelope Level Confirmation

BOARD	RF
SPEC.	$A \geq 70\text{mV}$
TEST	R/P ENV, HSW(B.E.R.Counter) (50 Ω terminated)
MODE	PLAY
TAPE	Color Bar
M.EQ	Oscilloscope

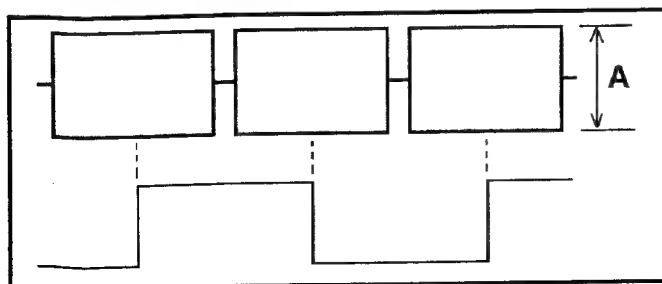
1. Confirm that the waveform is flat.



8-4. PB Envelope Level Adjustment

BOARD	RF
SPEC.	$100 \pm 10\text{mV}$
TEST	PB ENV, HSW(B.E.R.Counter) (50 Ω terminated)
ADJUST	VR400(PB L), VR401(PB R)
MODE	PLAY
TAPE	Color Bar
M.EQ	Oscilloscope

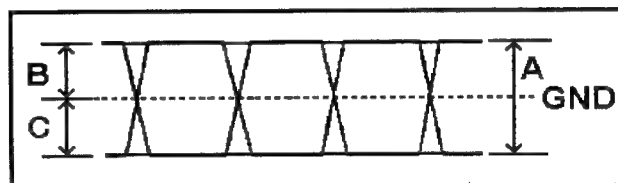
1. Confirm that the waveform is as shown in figure below.
2. Adjust the VR400(L ch) and VR401(R ch) so that the level A is within specification.



8-5. HSE Input Confirmation

BOARD	RF
TEST	TP201, TP300(Trigger)
ADJUST	VR200(DUTY)
MODE	REC
TAPE	Blank Tape
M.EQ	Oscilloscope

1. Set the oscilloscope to AC mode.
2. Monitor the TP201 and confirm that A is $1.3 \pm 0.1\text{V}$.
3. Confirm that B and C are the same.
4. If necessary, adjust the VR200 slightly.



8-6. PB Equalizer Adjustment(Auto)

Note. : Following procedures are required when using RF Adjustment Tool (VFK1163). Refer to Manual Adjustment for procedures with spectrum analyzer.

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:
PAGE : SERVICE ADJ.

ECU CONNECT :EVR
CONCEAL :OFF
INNER ECC :OFF
OUTER ECC :OFF
SERVO MODE :ATF

4. After setting turn the menu OFF.

1. Copy all files contained in floppy disk to a directory of hard disc drive. (ex. C:\DVCEQ)
2. Execute DVCRF.EXE file on DOS command prompt condition. (ex. "C:\DVCEQ\DVCRF")
3. Select (2)AJ-D700 in DVCPRO MODEL SELECT.
4. Select (1)NORMAL in PROGRAM SELECT.
5. Wait about 20 seconds for parameter loading.
6. Confirm all equipments are turned on.
7. Personal Computer(PC) asks "Do you transfer BOOT PROGRAM?". Select [Y].
8. PC asks whether any error has happened or not.
9. MAIN MENU is available.

F1 MENU

- 1.PB Adjustment
- 2.REC Adjustment
- 3.Result
- 4.File
- 5.Restart
- 6.End

10. Select 1.PB Adjustment.
11. Select whether downloading data from VTR or not.
12. Press F8 to select AUTO.
13. Confirm there is no tape in VTR and press [ENTER] key.
14. PC asks "Initial Adjust?". Select [Y].
15. Select 1.All Adjust in PB Auto Menu.
16. Insert an Alignment tape and play back color bar portion according to instruction on display.
17. Don't touch VTR and PC while adjusting.
18. Audio error rate isn't indicated.

PlayBack Parameter

	RF Head		PB Head	
	Leh	Reh	Leh	Reh
RF Phase	0	0	0	0
RF Map	0	0	0	0
PLL Phase	0	0	0	0
PLL Slice	0	0	0	0
Acc	0	0	0	0
AG Gain	0	0	0	0
EQ Phase	0	0	0	0
UTR Phase1	0	0	0	0
UTR Phase2	0	0	0	0
UTR Phase3	0	0	0	0
UTR Phase Fire	0	0	0	0
Main Relay	0	0	0	0
PLC UCD	0	0	0	0
UTR Gain	0	0	0	0

Error Rate Meter

Audio

Video

Command >

1MIN 2 3 4 5 6 7ERRORSP 8AUTO 9 10

19. Adjustment is over in several minutes.
20. Error rate is measured and displayed.

Error Rate Data

Mode	Channel			
			VideoL	VideoR
PRO RF Master	00000	00000	A	B
PRO Self Play	00000	00000	00000	00000

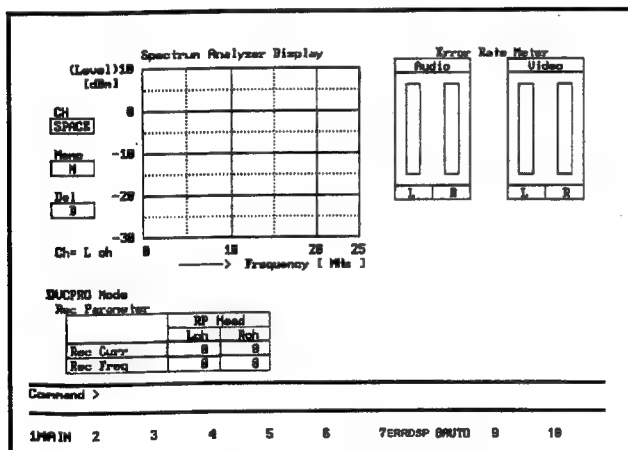
Command > (SPACE):Next Page (ESC):Exit

21. Confirm data A and B are green. If there is any red one, try again after cleaning a head and tape transportation.

8-7. Rec. Curr. & Freq. Adj.(Auto)

Note. : Following procedures are required when using RF Adjustment Tool (VFK1163). Refer to Manual Adjustment for procedures with spectrum analyzer.

1. Open MAIN MENU according to the same procedure as PB Equalizer Adjustment.
2. Select 2.REC Adjustment in MAIN MENU.
3. Select whether downloading data from VTR or not.
4. Press F8 to select AUTO.
5. Select 1.Adjust start in sub menu.
6. Insert an Alignment tape and play back color bar portion according to instruction on display.
7. After memorizing playback data, insert a blank tape and start recording.
8. Don't touch VTR and PC while adjusting.
9. Audio error rate isn't indicated.



10. Rewind a tape and play back recorded portion according to instruction on display.
11. Error rate is measured and displayed.
12. Confirm data A and B are green.

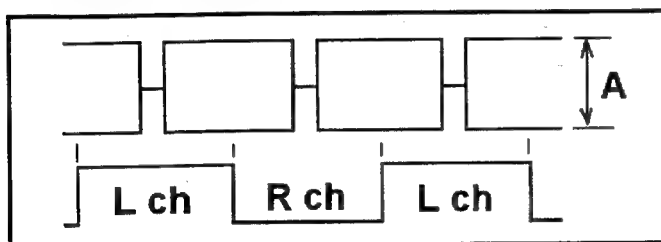
Error Rate Data				
Mode	Channel			
			VideoL	VideoR
PRO RP Master	00000	00000	00000	00000
PRO Self Play	00000	00000	A	B

Command >[SPACE]:Next Page (ESC):Exit

8-8. Confidence PB Adjustment

BOARD	RF
SPEC.	100±10mV
TEST	PB ENV, HSW(B.E.R.Counter) (50 Ω terminated)
ADJUST	VR400(PB L), VR401(PB R)
INPUT	Internal Color Bar
MODE	REC
TAPE	Blank Tape
M.EQ	Oscilloscope

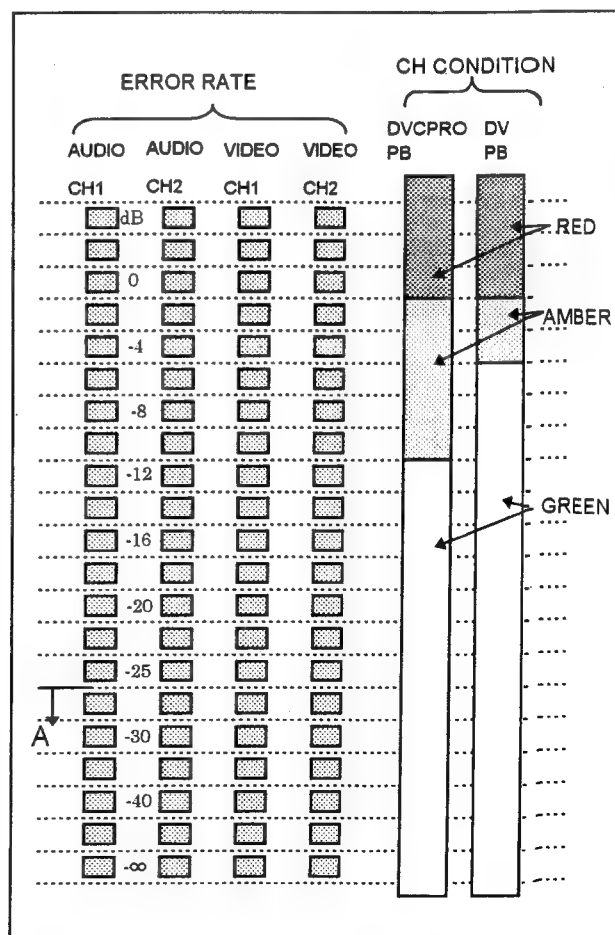
1. Adjust the **VR400** and **401** so that the level A is within specification in confidence PB.



8-9. Final Confirmation

BOARD	RF
TEST	VIDEO OUT
INPUT	Internal Color Bar
MODE	REC, PLAY
M.EQ	B.E.R. Counter, Monitor TV

1. Record internal color bar.
2. Play back the recorded portion.
3. Confirm that error rate is less than **23** on L and R channels.
4. Play back the recorded portion on AJ-D750 and confirm that error rate is less than A.
5. If out of specification, readjust Rec Current and Frequency Response.
6. Set as follows:
PAGE : SERVICE ADJ.
INNER ECC :ON
OUTER ECC :ON
7. Confirm that there is no error in playback picture.



【Manual Adjustment】

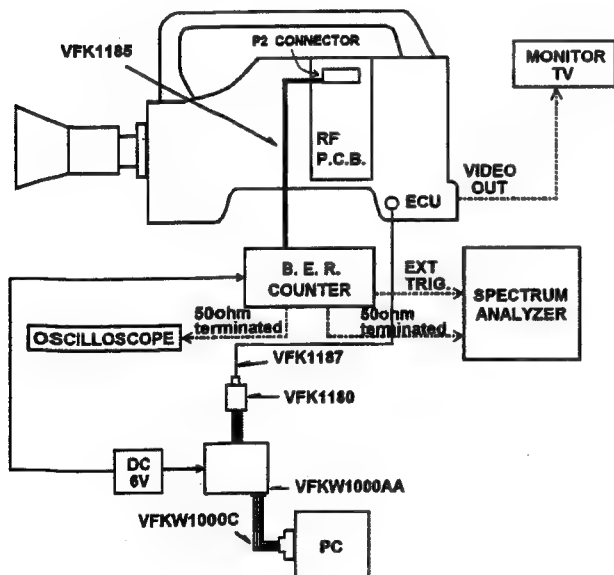
Initial Setting(Manual)

Note. : Following procedures are required when using spectrum analyzer instead of RF Adjustment Tool.

1. Connect the Camera Recorder, EVR and B.E.R. counter as shown in figure.

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:
PAGE : SERVICE ADJ.
ECU CONNECT :EVR
CONCEAL :OFF
4. After setting turn the menu OFF.



PB Equalizer Adjustment 1(Manual)

BOARD	RF
SPEC.	20.93±0.1MHz
TEST	EYE PAT, HSW(B.E.R.Counter)
ADJUST	EVR
MODE	PLAY
TAPE	Color Bar
M.EQ	Spectrum Analyzer, EVR

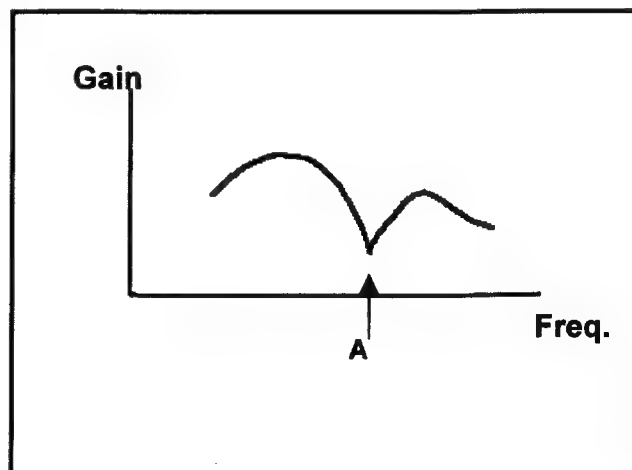
Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:
PAGE : SERVICE ADJ.
ECU CONNECT :EVR
CONCEAL :OFF
INNER ECC :OFF
OUTER ECC :OFF
4. After setting turn the menu OFF.

EVR Setting

CMD : 02DATA : C4 ADR : 0E

1. Press the [→] or [←] key in EVR so that the frequency at A portion is within specification.



PB Equalizer Adjustment 2(Manual)

BOARD	RF
TEST	VIDEO OUT, B.E.R.Counter
ADJUST	EVR
MODE	PLAY
TAPE	Color Bar
M.EQ	B.E.R. Counter, Monitor TV

EVR Setting

CMD : 02DATA : **90** ADR : **07** (EQ α L)
CMD : 02DATA : **90** ADR : **08** (EQ α R)
CMD : 02DATA : **35** ADR : **09** (EQ β L)
CMD : 02DATA : **35** ADR : **0A** (EQ β R)
CMD : 02DATA : **66** ADR : **0D** (PLL SL)
CMD : 02DATA : **9E** ADR : **0F** (PLL POS)
CMD : 02DATA : **CC** ADR : **10** (AUTO EQ)

1. Monitor the VIDEO OUT in monitor TV.
2. Set the ERROR COUNT ON in the B.E.R. counter.
3. Select **L ch** in the B.E.R. Counter.
4. Repeat adjusting the **EQ α L**, **EQ β L**, **PLL SL**, **PLL POS** and **AUTO EQ** until the error rate is minimized.(Start from the initial setting mentioned above and press [→] or [←] key in EVR to adjust.)
5. Select **R ch** in the B.E.R. Counter.
6. Fineadjust the **EQ α R** and **EQ β R** until the error rate is minimized.

Rec. Curr. & Freq.(L ch) Adj.(Manual)

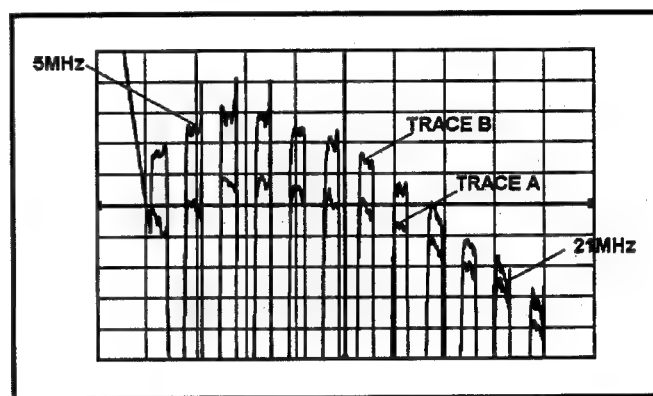
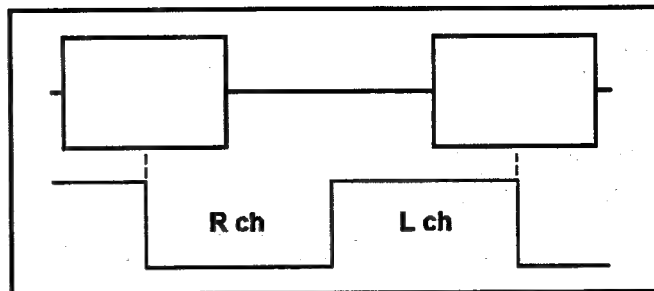
BOARD	RF
TEST	PB ENV, HSW(B.E.R.Counter)
ADJUST	VR401(PB R), EVR
INPUT	Internal Color Bar
MODE	PLAY, REC
TAPE	Color Bar, Blank Tape
M.EQ	Oscilloscope, Spectrum Analyzer, EVR

EVR Setting

CMD : 02DATA : 80 ADR : 20 (REC CUR L)

CMD : 02DATA : FF ADR : 1E (REC FRE L)

1. Play back the color bar tape and monitor the HSW and PB ENV(50 Ω terminated).
2. Turn the **VR401** until the R ch level is minimized.
3. Input the PB ENV to the spectrum analyzer.
4. Store the average of 30 samples in TRACE B.
5. Eject the alignment tape and insert the blank tape.
6. Monitor the PB envelope in the spectrum analyzer without averaging.
7. Set the EVR to **REC CUR L** mode.
8. Press the [→] or [←] key in EVR so that the level of confidence PB at 5MHz is 4dB lower than that of TRACE B.
9. Set the EVR to **REC FRE L** mode.
10. Press the [←] key in EVR until the level at 21MHz is maximized first.
11. Set the EVR to **REC CUR L** mode.
12. Press the [→] or [←] so that the level at 5MHz is the same as TRACE B.
13. If the level of confidence PB at 21MHz is lower than TRACE B, adjust so that the spectrum of confidence PB is a similar figure to TRACE B in the range less than 20MHz.
14. If the level of confidence PB at 21MHz is higher than TRACE B, adjust so that the level of confidence PB around 5MHz is the same as TRACE B regardless of similarity.



Rec. Curr. & Freq.(R ch) Adj.(Manual)

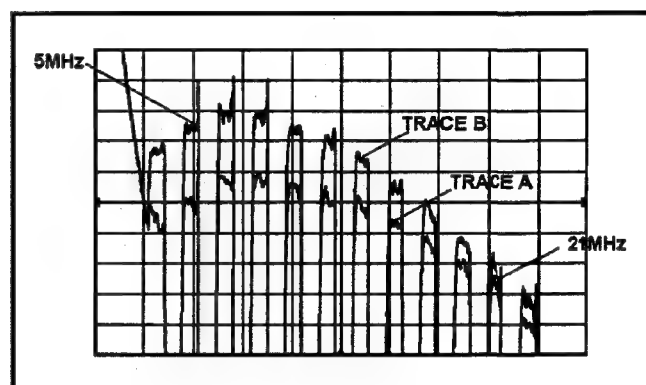
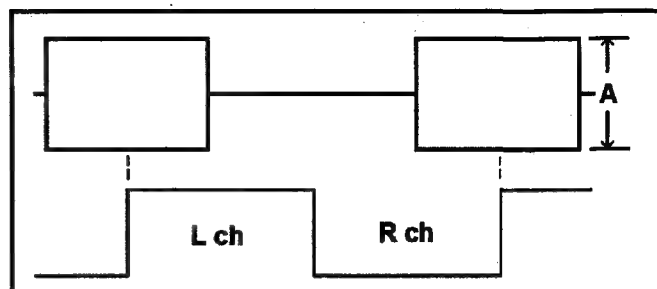
BOARD	RF
SPEC.	A=100±10mV
TEST	PB ENV, HSW(B.E.R.Counter)
ADJUST	VR400(PB L), VR401(PB R), EVR
INPUT	Internal Color Bar
MODE	PLAY, REC
TAPE	Color Bar, Blank Tape
M.EQ	Oscilloscope, Spectrum Analyzer, EVR

EVR Setting

CMD : 02DATA : 80 ADR : 21 (REC CUR R)

CMD : 02DATA : FF ADR : 1F (REC FRE R)

1. Play back the color bar tape and monitor the HSW and PB ENV(50Ω terminated).
2. Turn the **VR400** until the L ch level is minimized.
3. Adjust the **VR401** so that the R ch level is within specification.
4. Input the PB ENV to the spectrum analyzer.
5. Store the average of 30 samples in TRACE B.
6. Eject the alignment tape and insert the blank tape.
7. Monitor the confidence PB envelope in the spectrum analyzer without averaging.
8. Set the EVR to **REC CUR R** mode.
9. Press the [→] or [←] key in EVR so that the level of confidence PB at 5MHz is 4dB lower than that of TRACE B.
10. Set the EVR to **REC FRE R** mode.
11. Press the [←] key in EVR until the level at 21MHz is maximized first.
12. Set the EVR to **REC CUR R** mode.
13. Press the [→] or [←] so that the level at 5MHz is the same as TRACE B.
14. If the level of confidence PB at 21MHz is lower than TRACE B, adjust so that the spectrum of confidence PB is a similar figure to TRACE B in the range less than 20MHz.
15. If the level of confidence PB at 21MHz is higher than TRACE B, adjust so that the level of confidence PB around 5MHz is the same as TRACE B regardless of similarity.



9. Audio LCD

9-1. Initial Setting

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:

PAGE : MAIN FUNCTION

PHANTOM FRONT :OFF
PHANTOM CH1 :OFF
PHANTOM CH2 :OFF

PAGE : FUNCTION 4/5

FRONT MIC : -60dB
REAR MIC CH1 : -60dB
REAR MIC CH2 : -60dB
LINE CH1/CH2 : (NTSC) +4dB
:(PAL) 0dB

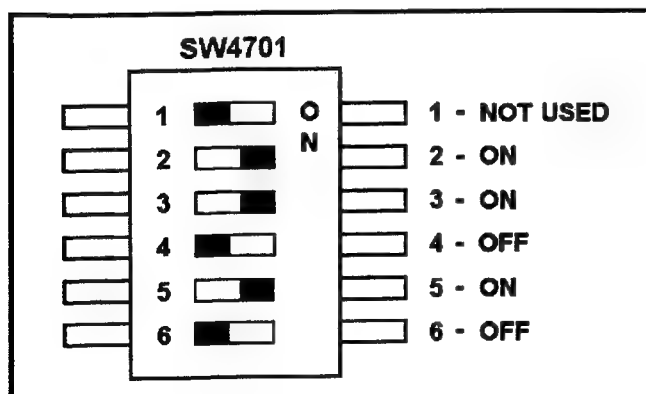
REAR AUDIO :STEREO
MIC LOWCUT CH1 :OFF
MIC LOWCUT CH2 :OFF
EMPHASIS :OFF

PAGE : FUNCTION 5/5

AUDIO OUT :CH1
LIMITER :OFF
TEST TONE :OFF

4. After setting turn the menu OFF.

1. Set the **SW4701** on Audio LCD board as shown in figure.



9-2. Playback Level Adjustment

BOARD	Audio LCD
SPEC.	(CH 1/CH 2) -20dBu±0.2dB (AUDIO OUT) (NTSC) 4dBu±0.2dB (PAL) 0dBu±0.2dB
TEST	Multi Connector(CH1,CH2), AUDIO OUT
ADJUST	VR301, VR401, VR701
MODE	PLAY
TAPE	(NTSC) VFM3580KM(No.1:0~14min) (PAL) VFM3680KM(No.1:0~14min)
M.EQ	<1>Audio Precision, VFK1210 <2>VTVM, SHAN-C12TCA

SW Setting

AUDIO IN CH1 : REAR, LINE
AUDIO IN CH2 : REAR, LINE
AUDIO SELECT : MAN

<1. Using Audio Precision>

1. Connect multi connector with Audio Precision using VFK1210.
2. Adjust the **VR301**(CH 1) so that the levels of **CH 1** (12pin multi connector) is within specification.
3. Adjust the **VR401**(CH 2) so that the levels of **CH 2** (12pin multi connector) is within specification.
4. Adjust the **VR701** so that the level of **AUDIO OUT**(XLR at Rear Jack) is within specification.

<2. Using VTVM>

1. When using VTVM, connect multi connector with VTVM with SHAN-C12TCA(Red:CH1, Black:CH2).
2. Follow the same procedure as <1. Using Audio Precision>.

9-3. Recording Level Adjustment

BOARD	Audio LCD
SPEC.	-20dBu \pm 0.2dB
TEST	Multi Connector(CH1,CH2)
ADJUST	VR102, VR202
INPUT	(NTSC) 1kHz 4dBu Sine Wave (PAL) 1kHz 0dBu Sine Wave
MODE	EJECT
M.EQ	<1>Audio Precision, VFK1210 <2>VTVM, SHAN-C12TCA, CR Oscillator

SW Setting

AUDIO IN CH1 : REAR, LINE

AUDIO IN CH2 : REAR, LINE

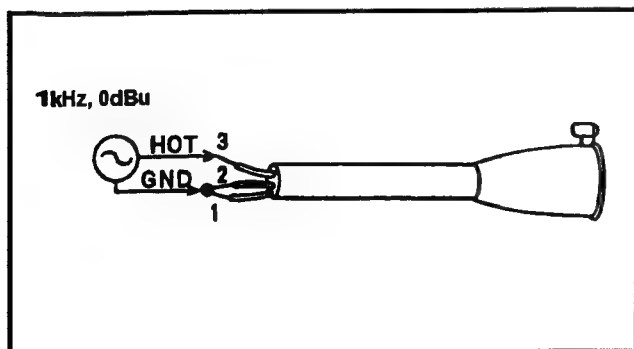
AUDIO SELECT : MAN

<1. Using Audio Precision>

1. Connect multi connector with Audio Precision using VFK1210.
2. Set the AUDIO LEVEL VRs to center position.
3. Input the signal mentioned above to AUDIO IN CH1 connector.
4. Adjust the VR102 so that the level of CH 1 OUT (multi connector) is within specification.
5. Input the signal mentioned above to AUDIO IN CH2 connector.
6. Adjust the VR202 so that the level of CH 2 OUT (multi connector) is within specification.

<2. Using VTVM>

1. When using VTVM, connect multi connector with VTVM with SHAN-C12TCA(Red:CH1, Black:CH2).
2. Follow the same procedure as <1. Using Audio Precision>.
3. Use the cable shown below to input signal.



9-4. Meter Adjustment

BOARD	Audio LCD
SPEC.	(NTSC)0.63 \pm 0.005V,(PAL)0.71 \pm 0.005V
TEST	TP102, TP202
ADJUST	VR103, VR203
INPUT	(NTSC) 1kHz 4dBu Sine Wave (PAL) 1kHz 0dBu Sine Wave
MODE	EJECT
M.EQ	<1>Digital Volt Meter, Audio Precision <2>Digital Volt Meter, CR oscillator

SW Setting

AUDIO IN CH1 : REAR, LINE

AUDIO IN CH2 : REAR, LINE

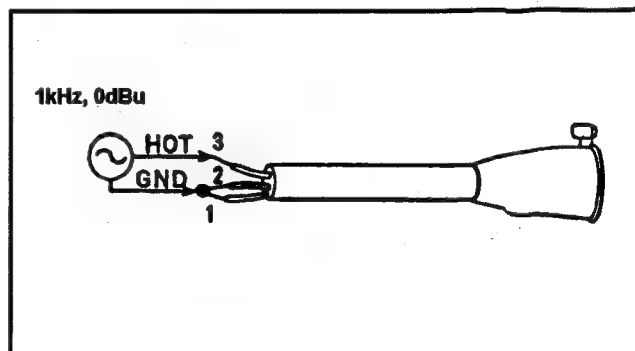
AUDIO SELECT : MAN

<1. Using Audio Precision>

1. Input the signal mentioned above to AUDIO IN CH1 connector.
2. Adjust the VR103 so that the DC voltage at the TP102 is within specification.
3. Input the signal mentioned above to AUDIO IN CH2 connector.
4. Adjust the VR203 so that the DC voltage at the TP202 is within specification.
5. Confirm that the Audio Level Meter on LCD indicates one scale higher than -20dB.

<2. Using CR Oscillator>

1. Follow the same procedure as <1. Using Audio Precision>.



9-5. Test SG Adjustment

BOARD	Audio LCD
SPEC.	(Distortion) $1.0 \pm 0.1\%$ (Level) $-20\text{dBu} \pm 0.5\text{dB}$
TEST	Multi Connector(CH 1)
ADJUST	VR1, VR2
MODE	EJECT
M.EQ	Frequency Counter <1>Audio Precision, VFK1210 <2>VTVM, SHAN-C12TCA, Distortion Meter

SW Setting

AUDIO IN CH1 : FRONT, MIC
AUDIO IN CH2 : REAR, LINE
AUDIO SELECT : MAN

Menu Setting

1. Open the operation panel.
 2. Pressing [SHIFT] and [+] buttons, set MENU switch to SET position.
 3. Set as follows:
PAGE : FUNCTION 5/5
TEST TONE : ON
 4. After setting turn the menu OFF.
- <1. Using Audio Precision>
1. Confirm that no signal is input.
 2. Select **BARS** in OUTPUT SW and **FRONT MIC** in AUDIO IN SW CH1.
 3. Confirm that 1kHz test signal is output.
 4. Adjust the **VR1** so that the distortion is within specification.
 5. Adjust the **VR2** so that the level is within specification.
 6. After the adjustment, return TEST TONE to OFF.
- <2. Using VTVM>
1. Follow the same procedure as <1. Using Audio Precision>.

9-6. CUE Recording Level Adjustment

BOARD	Audio LCD
SPEC.	$0.245\text{Vrms} \pm 0.006\text{V}$
TEST	TP501
ADJUST	VR501, SW701-2pin
INPUT	(NTSC) 1kHz 4dBu Sine Wave (PAL) 1kHz 0dBu Sine Wave
MODE	EJECT
M.EQ	<1>Oscilloscope, Audio Precision <2>Oscilloscope, CR oscillator

SW Setting

AUDIO IN CH1 : REAR, LINE
AUDIO IN CH2 : REAR, LINE
AUDIO SELECT : MAN

<1. Using Audio Precision>

1. Input the signal mentioned above to AUDIO IN CH1 connector.
2. Set the 2nd pin of **SW701** to OFF and adjust the **VR501** so that the level is within specification.
3. After the adjustment, return the 2nd pin of **SW701** to ON.

<2. Using CR Oscillator>

1. Follow the same procedure as <1. Using Audio Precision>.

9-7. CUE Rec. Current Adjustment

BOARD	Audio LCD
SPEC.	0.775Vrms \pm 0.05V
TEST	TP505
ADJUST	VR1002(Rear Jack Board), VR503
INPUT	1kHz 4dBu Sine Wave
MODE	PLAY
TAPE	(NTSC) VFM3580KM(No.1:0~14min) (PAL) VFM3680KM(No.1:0~14min) Blank Tape
M.EQ	<1>Oscilloscope, Audio Precision <2>Oscilloscope, CR oscillator

SW Setting

AUDIO IN CH1 : REAR, LINE

AUDIO IN CH2 : REAR, LINE

AUDIO SELECT : MAN

<1. Using Audio Precision>

1. Confirm that the 2nd pin of **SW701** to OFF and input the signal mentioned above to AUDIO IN CH1 connector.
2. Playback the alignment tape and adjust the **VR503** so that the level at the **TP505** is **0.195Vrms \pm 0.015V**.
3. Record the signal.
4. Play back the recorded signal and adjust the **VR1002** on the Rear Jack Board so that the level difference from the level adjusted above is within specification. (**VR1002** is mounted on bottom side, below the flat cable connecting Audio LCD Board with Rear Jack Board.)
5. After the adjustment, return the 2nd pin of **SW701** to ON.

<2. Using CR Oscillator>

1. Follow the same procedure as <1. Using Audio Precision>.

9-8. Final Setting

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set MENU switch to SET position.
3. Set as follows:

PAGE : MAIN FUNCTION

PHANTOM FRONT :ON
PHANTOM CH1 :OFF
PHANTOM CH2 :OFF

PAGE : FUNCTION 4/5

FRONT MIC :**-40dB**
REAR MIC CH1 : -60dB
REAR MIC CH2 : -60dB
LINE CH1/CH2 : (NTSC) +4dB
:(PAL) 0dB
REAR AUDIO :STEREO
MIC LOWCUT CH1 :OFF
MIC LOWCUT CH2 :OFF
EMPHASIS :OFF

PAGE : FUNCTION 5/5

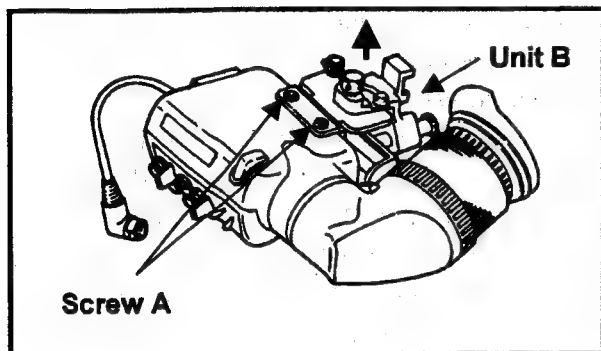
AUDIO OUT :CH1
LIMITER :ON
TEST TONE :ON

4. After setting turn the menu OFF.

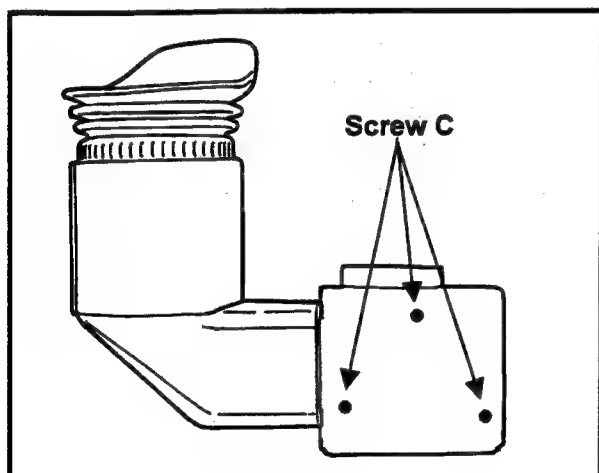
10. EVF

Preparation

1. Remove two screws A to pull off the unit B.



2. Remove three screws C at bottom side.
3. Open bottom case.
4. Connect EVF cable with AJ-D700.



10-1. H Free Run Adjustment

BOARD	VIDEO
SPEC.	15.75±0.1kHz (NTSC) 15.625±0.1kHz (PAL)
TEST	TP9102(H Def Board)
ADJUST	VR9001
M.EQ	Frequency Counter

1. Adjust the VR9001 so that the frequency at the TP9102 is within specification without input signal.

10-2. V Free Run Adjustment

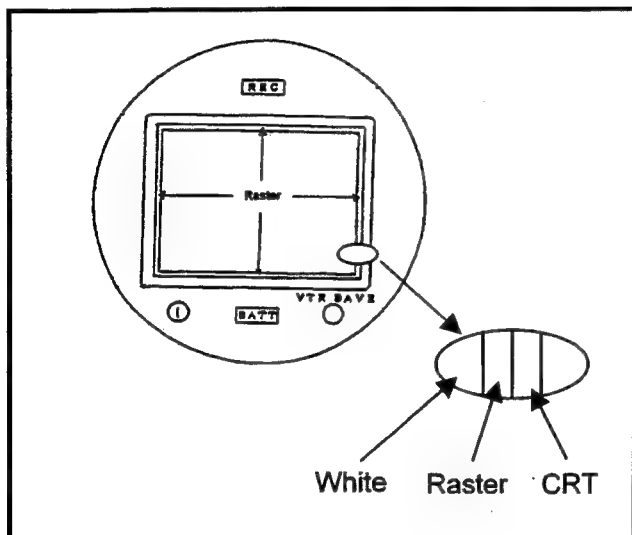
BOARD	VIDEO
SPEC.	54±0.5Hz (NTSC) 46±0.5Hz (PAL)
TEST	TP9002
ADJUST	VR9002
M.EQ	Frequency Counter

1. Adjust the VR9002 so that the frequency at the TP9002 is within specification without input signal.

10-3. Sub Bright Adjustment

BOARD	H Def
TEST	EVF Picture
ADJUST	VR9103
SUBJECT	90% White

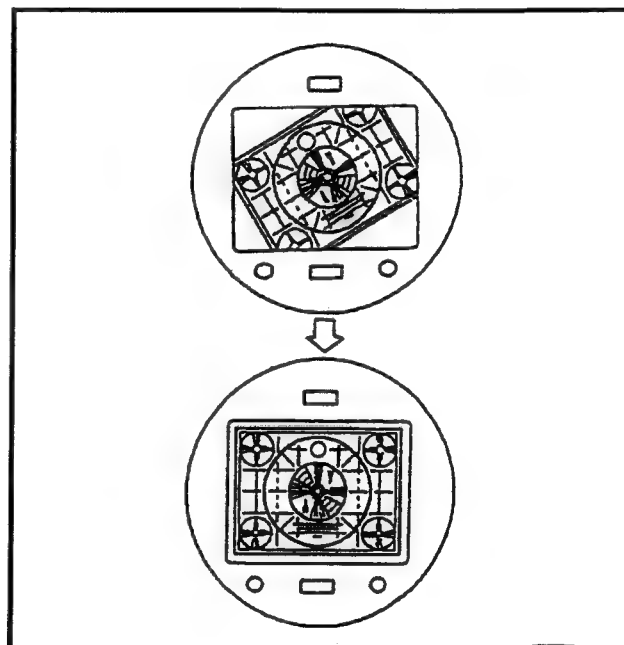
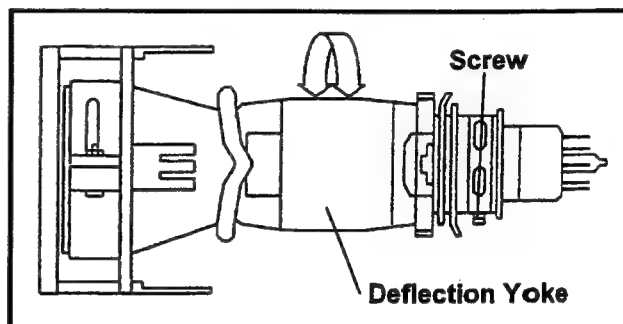
1. Set BRIGHT VR to MAX, CONTRAST VR to MAX and PEAKING VR to MIN.
2. Adjust the **VR9103** so that raster slightly appears.



10-4. Rotation Adjustment

TEST	EVF Picture
ADJUST	Deflection Yoke
SUBJECT	Registration Chart

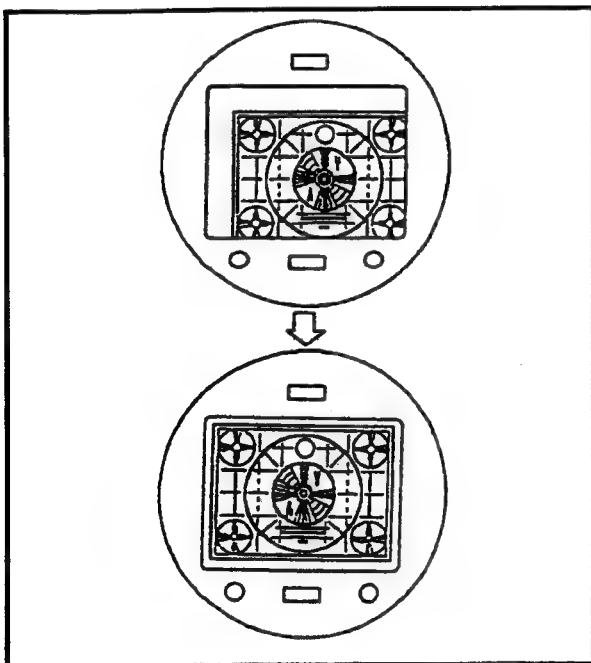
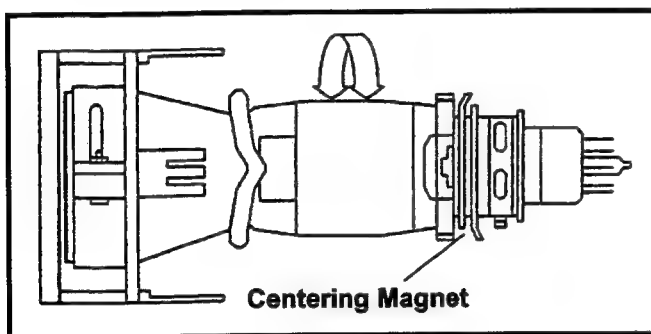
1. Loosen the screw and rotate Deflection Yoke so that the picture stands horizontally.
2. Tighten the screw again.



10-5. Centering Adjustment

BOARD	H Def
TEST	EVF Picture
ADJUST	Centering Magnet
SUBJECT	Registration Chart

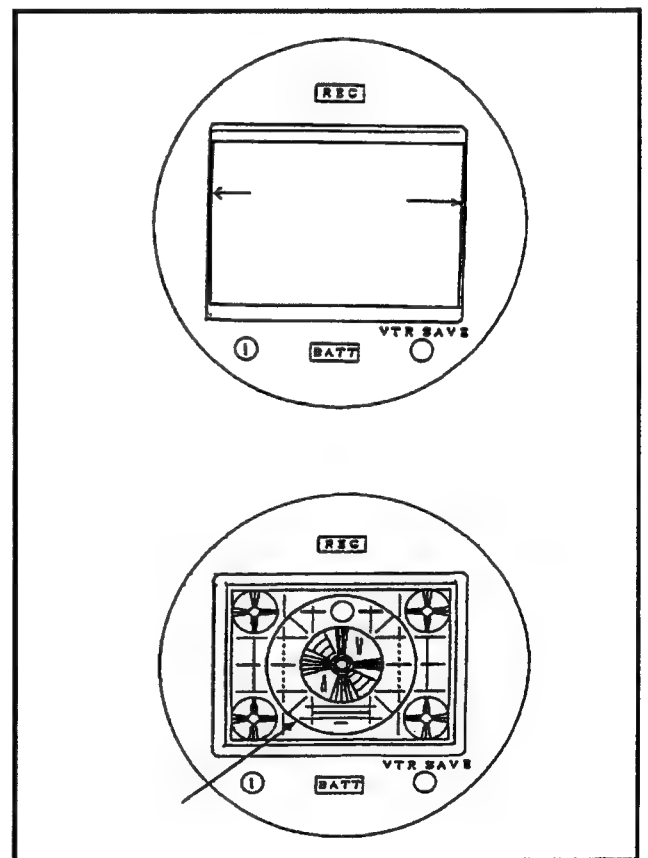
1. Set BRIGHT VR to MAX, CONTRAST VR to MAX and PEAKING VR to MIN.
2. Rotate Centering Magnet so that the picture stands at the center.



10-6. Size Adjustment

BOARD	H Def, VIDEO
TEST	EVF Picture
ADJUST	VR9101(H DEF), VR9003(VIDEO)
SUBJECT	Registration Chart

1. Set BRIGHT VR to MAX, CONTRAST VR to MAX and PEAKING VR to MIN.
2. Adjust the VR9101 so that the picture is maximized.
3. Repeat Rotation and Centering adjustments slightly in case of need.
4. Adjust the VR9003 so that the circle of chart is most round.



10-7. V Linearity Adjustment

BOARD	VIDEO
TEST	EVF Picture
ADJUST	VR9004
SUBJECT	Registration Chart

1. Adjust the **VR9004** so that the circle of chart is most round.

10-8. Balance Adjustment

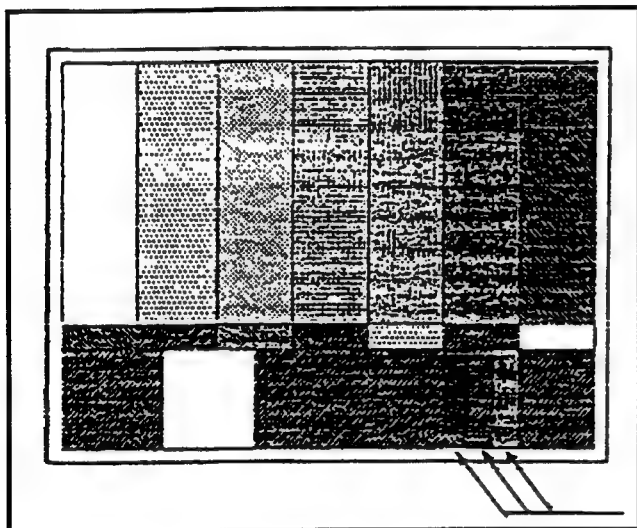
TEST	EVF Picture
ADJUST	Deflection Yoke Centering Magnet VR9003, VR9004
SUBJECT	Registration Chart

1. Fineadjust Rotation, Centering, Size(Vertical) and V Linearity.

10-9. Bright Adjustment

BOARD	VR.SW
TEST	EVF Picture
ADJUST	VR9301
SUBJECT	Color Bar(SMPTE)

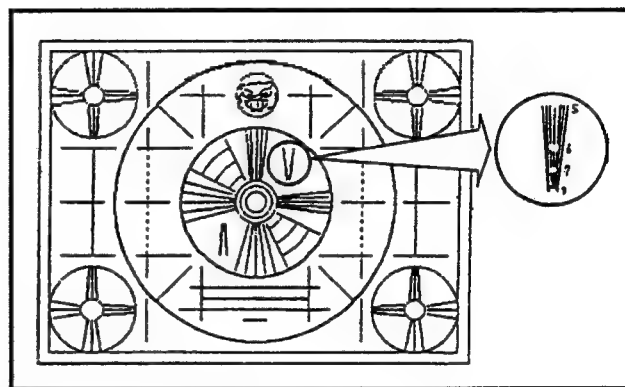
1. Set CONTRAST VR to MAX and PEAKING VR to MIN.
2. Monitor the three regions indicated by arrow
3. Adjust the **VR9301** so that the right region is slightly lighted and other two is black.



10-10. Focus Adjustment

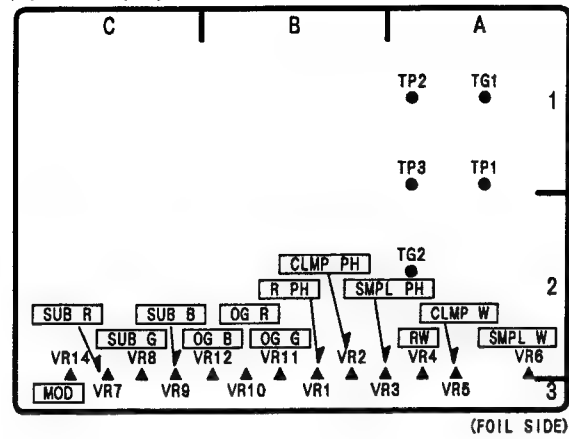
BOARD	H DEF
TEST	EVF Picture
ADJUST	VR9102
SUBJECT	Registration Chart

1. Set CONTRAST VR to MAX and PEAKING VR to MIN.
2. Adjust the **VR9102** so that resolution is best.

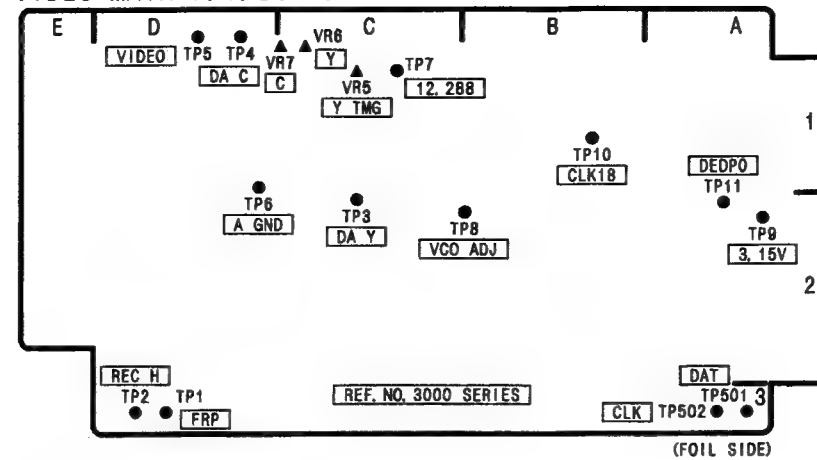


LOCATION OF TEST POINTS & CONTROLS

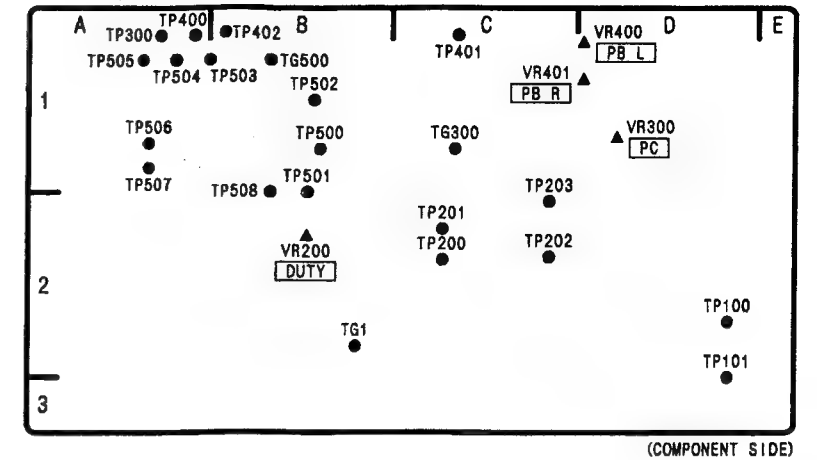
PULSE P. C. BOARD



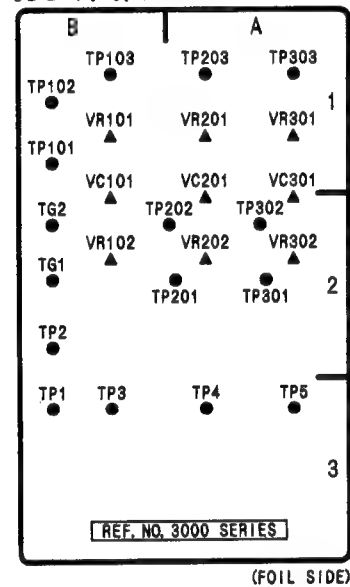
VIDEO MAIN P. C. BOARD



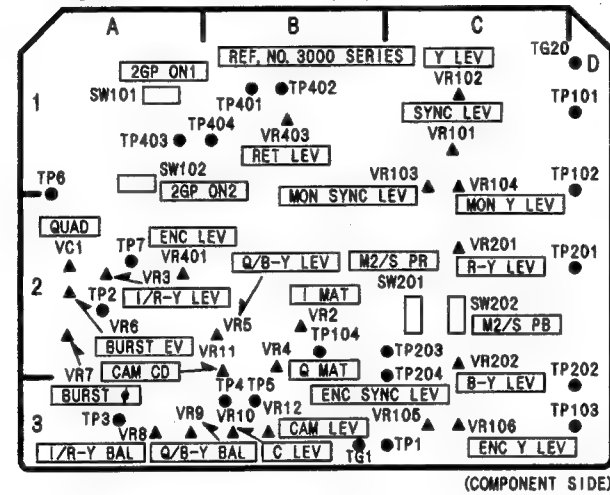
RF P. C. BOARD



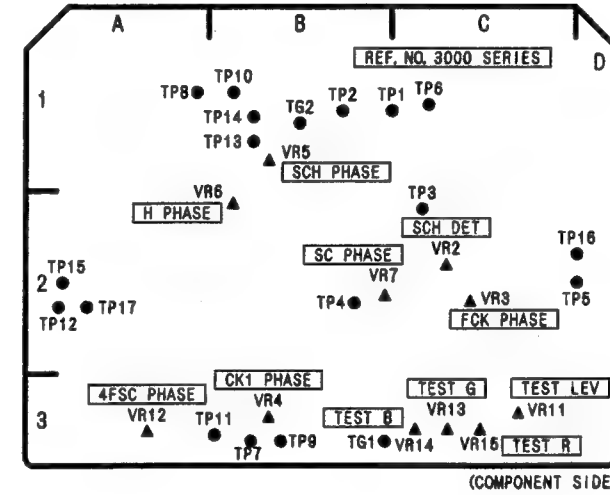
CDS P. C. BOARD



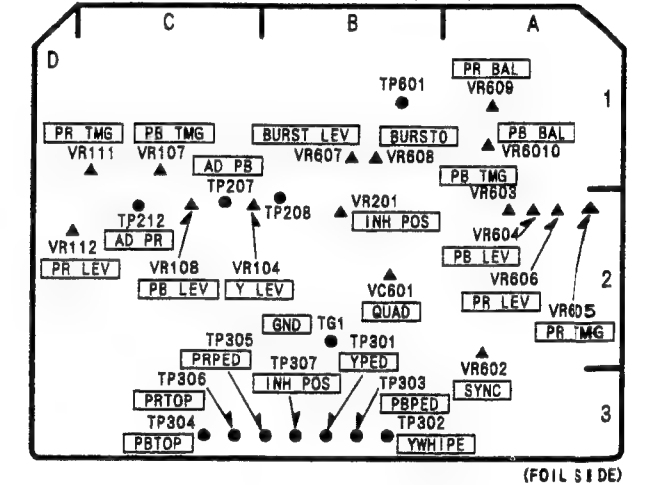
CAMERA ENCODER P. C. BOARD



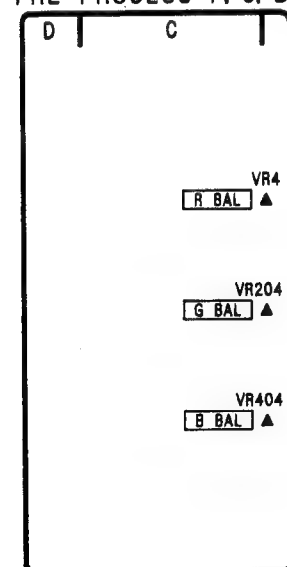
CAMERA SYNC P. C. BOARD



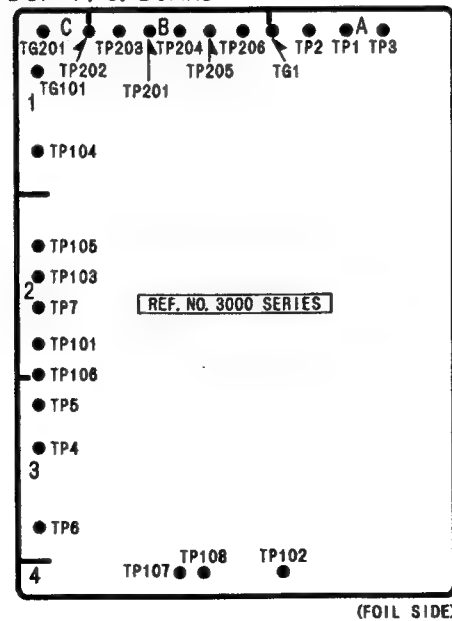
VIDEO I/F P. C. BOARD (PAL)



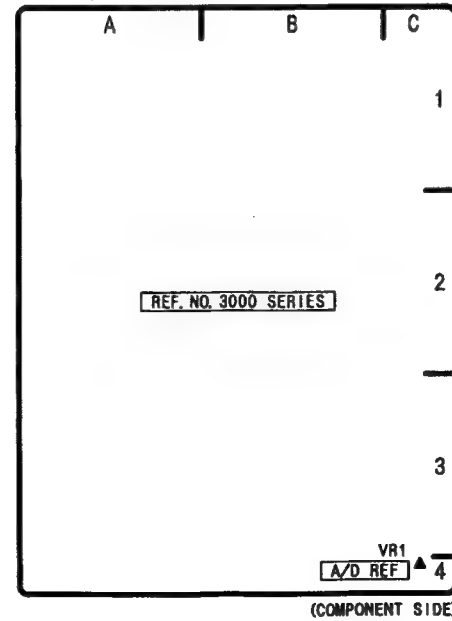
PRE PROCESS P. C. BOARD



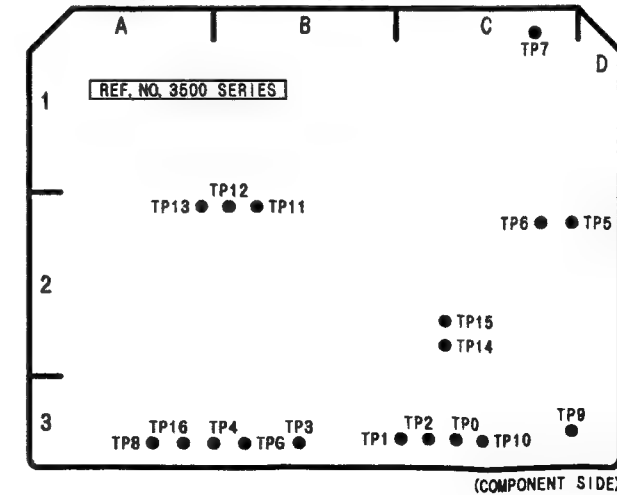
DSP P. C. BOARD



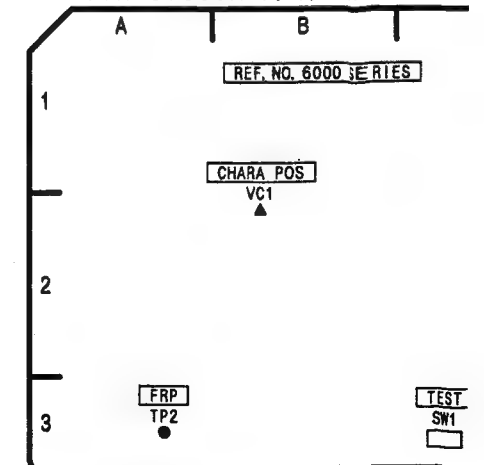
DSP P. C. BOARD

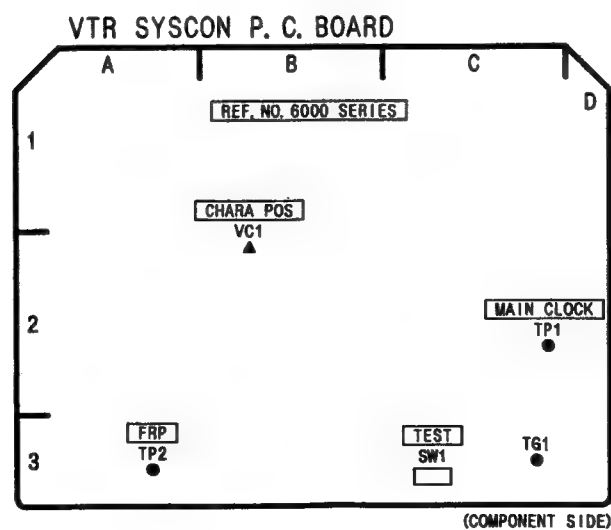
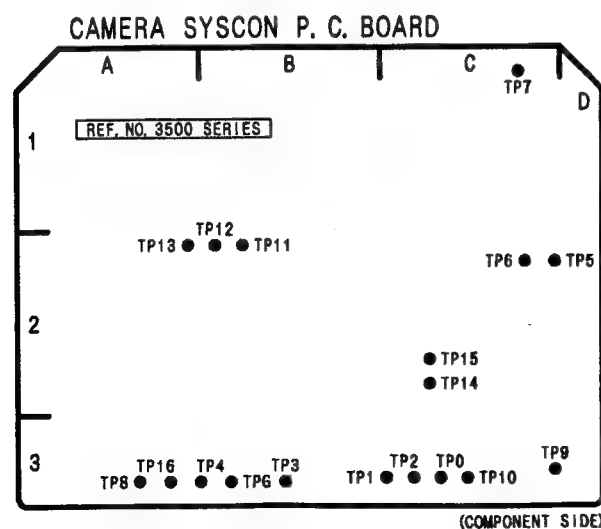
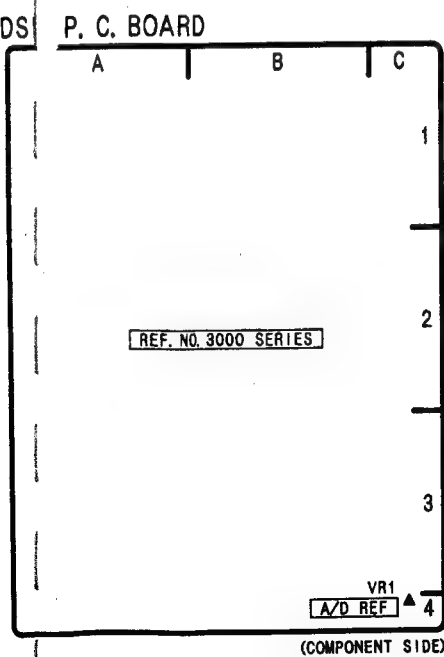
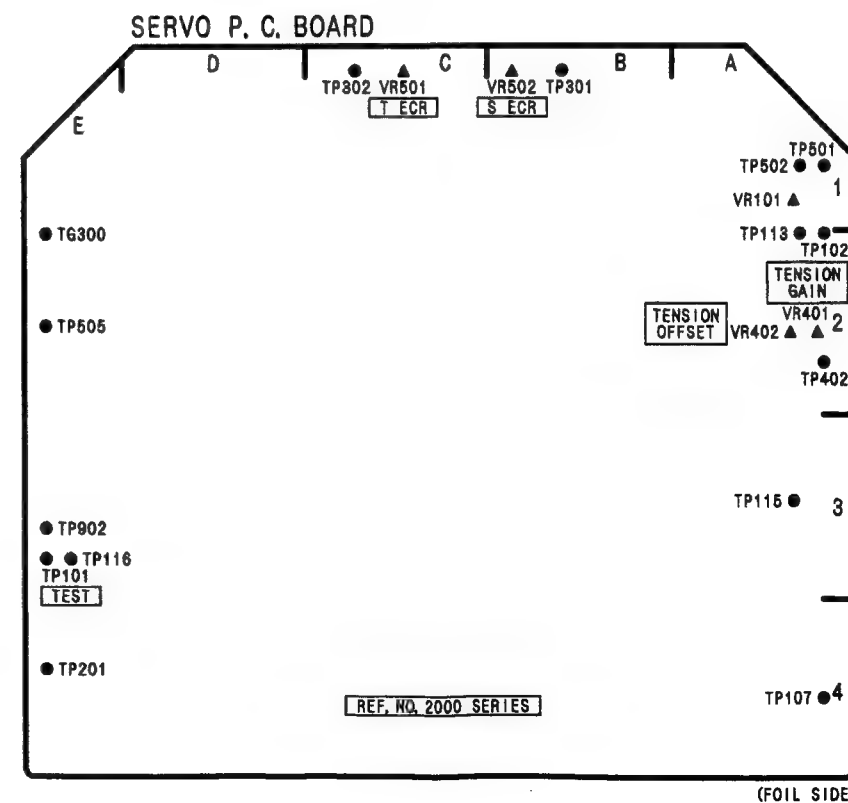
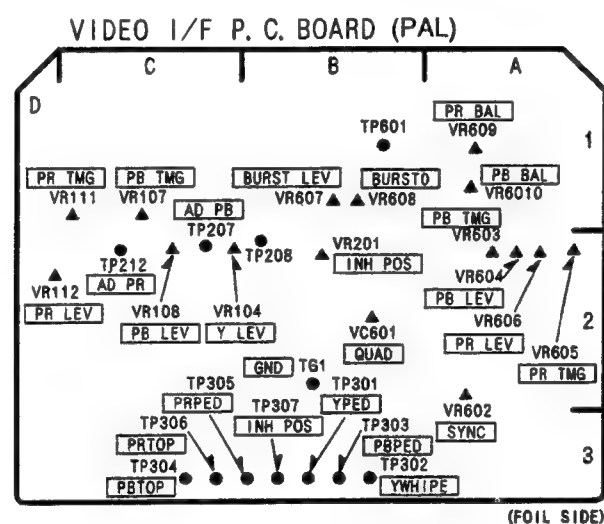
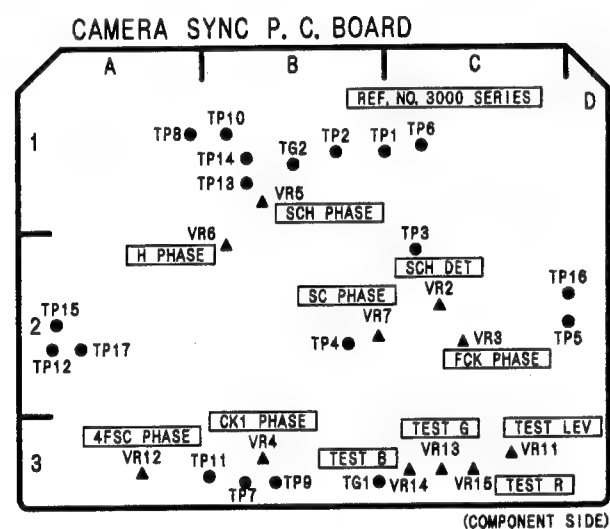
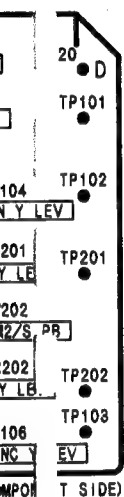
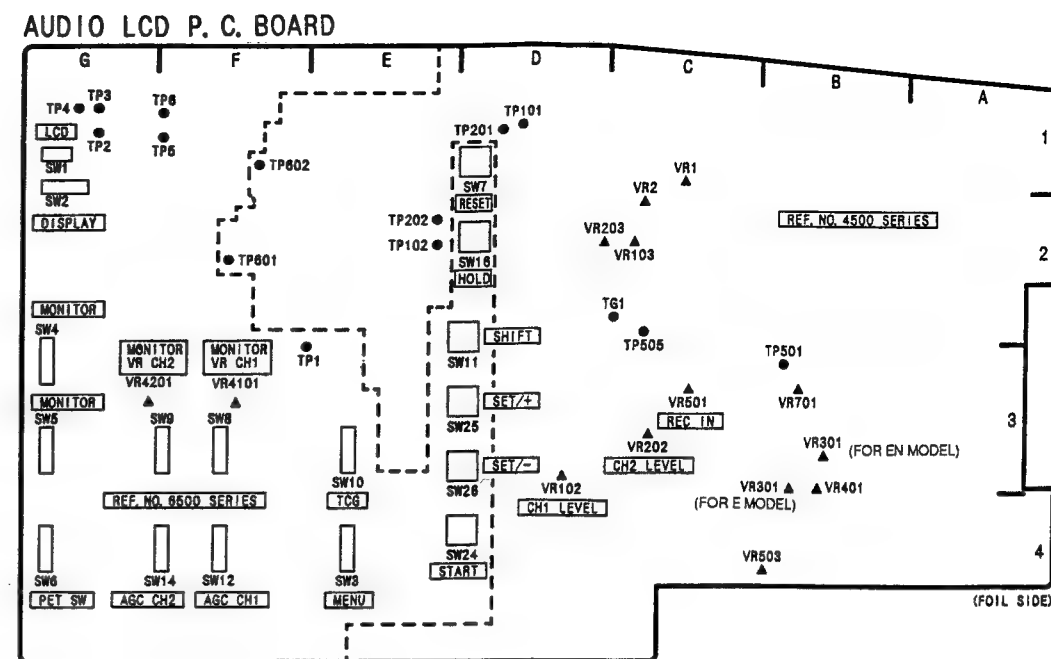
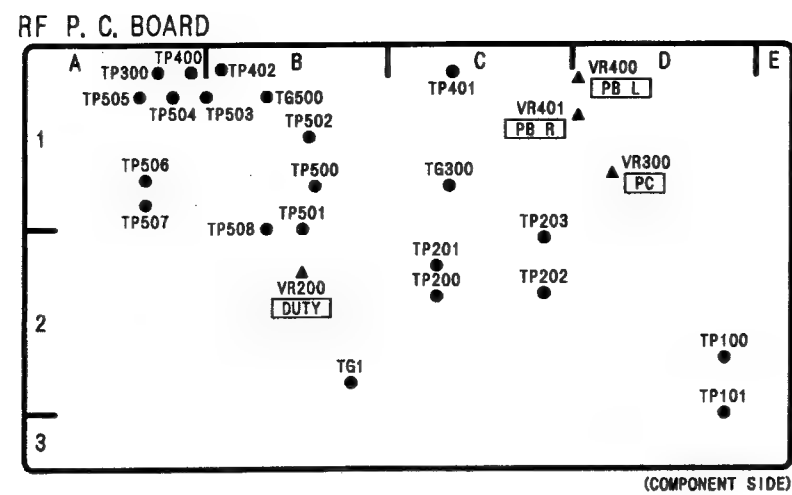
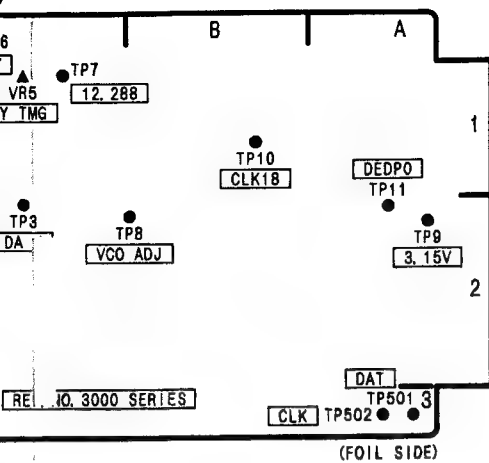


CAMERA SYSCON P. C. BOARD



VTR SYSCON P. C. BOARD





SECTION 5

BLOCK DIAGRAMS

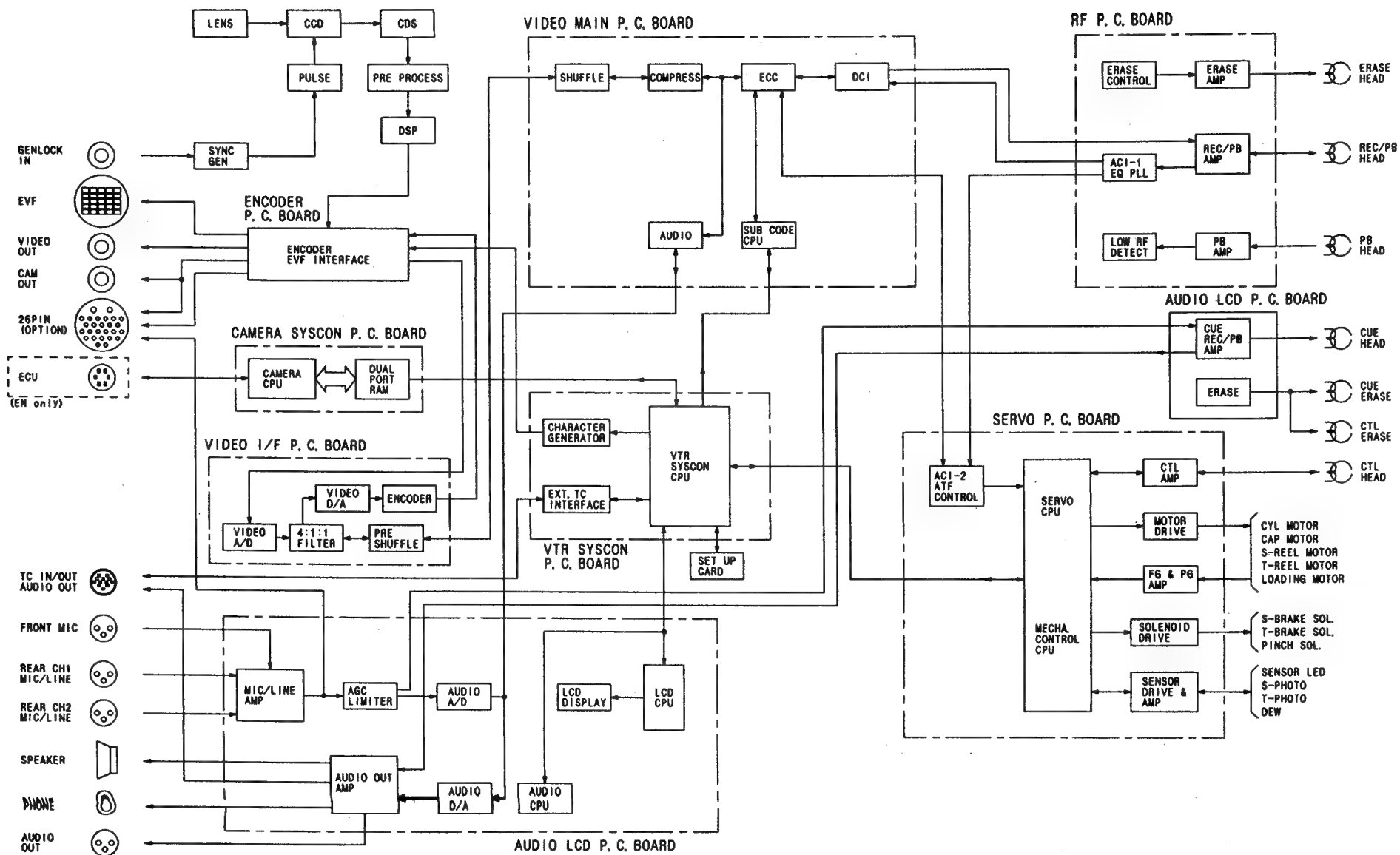
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OVERALL BLOCK DIAGRAM

5-1



CDS P.C.Board

CDS is the abbreviation of Correlated Double Sampling which smoothes CCD outputs.

Input signal, **R IN**, from CCD P.C.Board is processed with **LPF**. After that it has two ways. Upper one is for signal component process, lower one is for noise component.

In upper way the sample pulse, **SMPL**, samples and holds the charge level of signal component. The clamp pulse, **CLMP**, samples and holds the pedestal level of signal component.

In lower way the sample pulse, **SMPL**, samples and holds the noise level of signal component. The clamp pulse, **CLMP**, samples and holds the pedestal level of noise component.

The difference between signal component and noise component is output to Pre Process P.C.Board as **R-S/H**.

VC101 is the VR to minimize career leak. **VR102** adjusts DC level, and **VR101** does output level.

Input signal, **G IN**, from CCD P.C.Board is processed with **LPF**. After that it has two ways. Upper one is for signal component process, lower one is for noise component.

In upper way the sample pulse, **SMPL**, samples and holds the charge level of signal component. The clamp pulse, **CLMP**, samples and holds the pedestal level of signal component.

In lower way the sample pulse, **SMPL**, samples and holds the noise level of signal component. The clamp pulse, **CLMP**, samples and holds the pedestal level of noise component.

The difference between signal component and noise component is output to Pre Process P.C.Board as **G-S/H**.

VC201 is the VR to minimize career leak. **VR202** adjusts DC level, and **VR201** does output level.

Input signal, **B IN**, from CCD P.C.Board is processed with **LPF**. After that it has two ways. Upper one is for signal component process, lower one is for noise component.

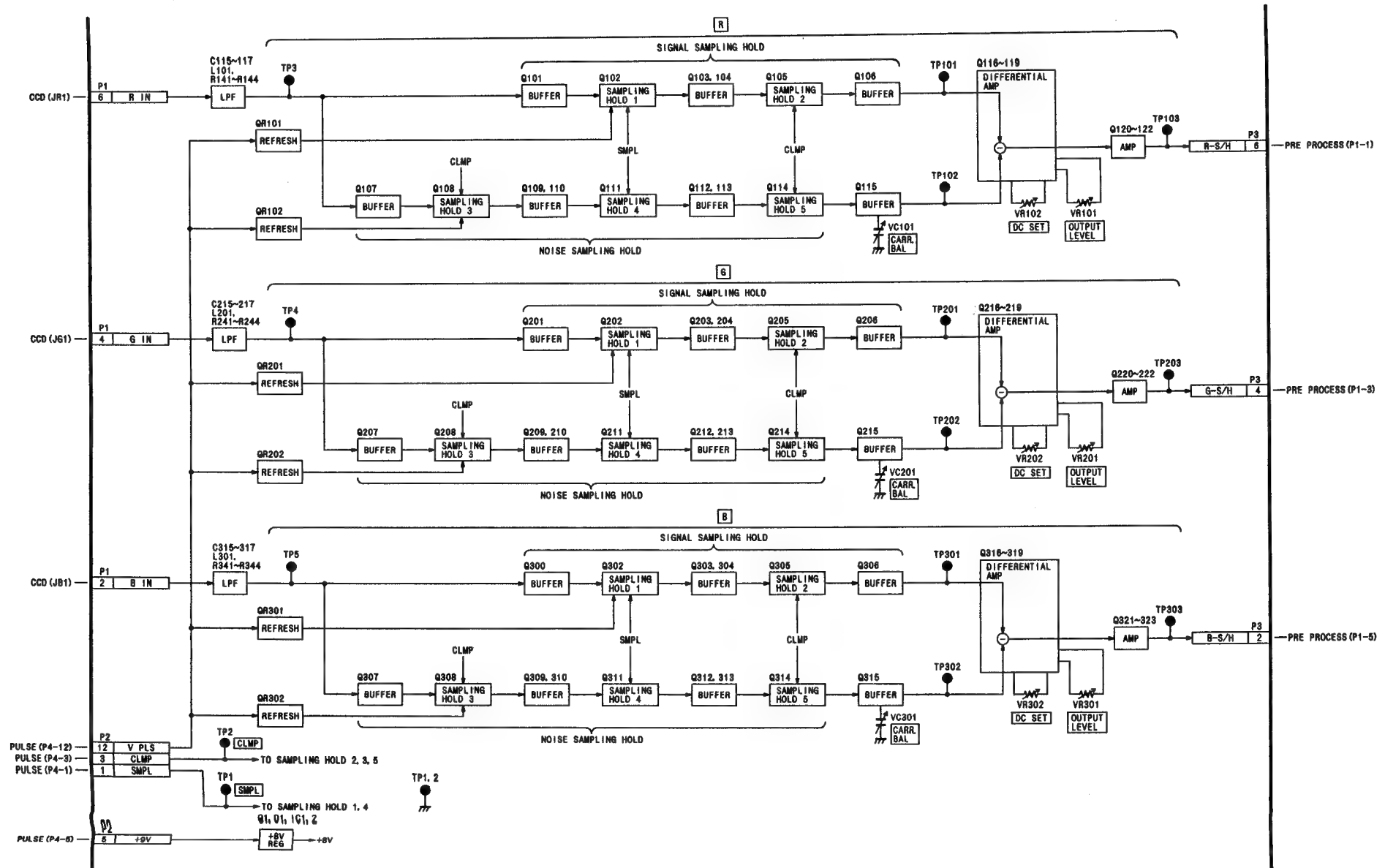
In upper way the sample pulse, **SMPL**, samples and holds the charge level of signal component. The clamp pulse, **CLMP**, samples and holds the pedestal level of signal component.

In lower way the sample pulse, **SMPL**, samples and holds the noise level of signal component. The clamp pulse, **CLMP**, samples and holds the pedestal level of noise component.

The difference between signal component and noise component is output to Pre Process P.C.Board as **B-S/H**.

VC301 is the VR to minimize career leak. **VR302** adjusts DC level, and **VR301** does output level.

CDS BLOCK DIAGRAM



Pulse P.C.Board

This circuit makes those pulses which drive CCD.

IC2 makes V-CCD Drive Pulse of **VA1~VA4,VB1~VB4**, Charge Pulse of **CH1,CH2** and Shutter Pulse of **CHS** from V Drive Pulse **CCD VD** supplied from Sync P.C.Board. Shutter speed is controlled by **SHUT A,SHUT B** and **SHUT C**. The logic table is located on the top left of the diagram.

SLOW SHUTTER of **IC7,IC8** and **IC9** make the shutter pulse used in 1/50 of shutter speed. V-CCD Drive Pulses are supplied to CCD P.C.Board as **XVA1~XVA2, XVB1~XVB4**.

VR14 can shift H Drive, **CCD HD**, to change modulation.

The PLL which is composed of phase comparator in **IC2** and oscillator **X1** generates H-CCD Drive Pulse **H12** and **H34** in **IC1** locked to **CCD HD**. These are supplied to CCD P.C.Board as **XH1, XH2**.

Reset Pulse of **XR**, Clamp Pulse of **CLMP** and Sample Pulse of **SMPL** are generated in the same way and supplied to CCD P.C.Board.

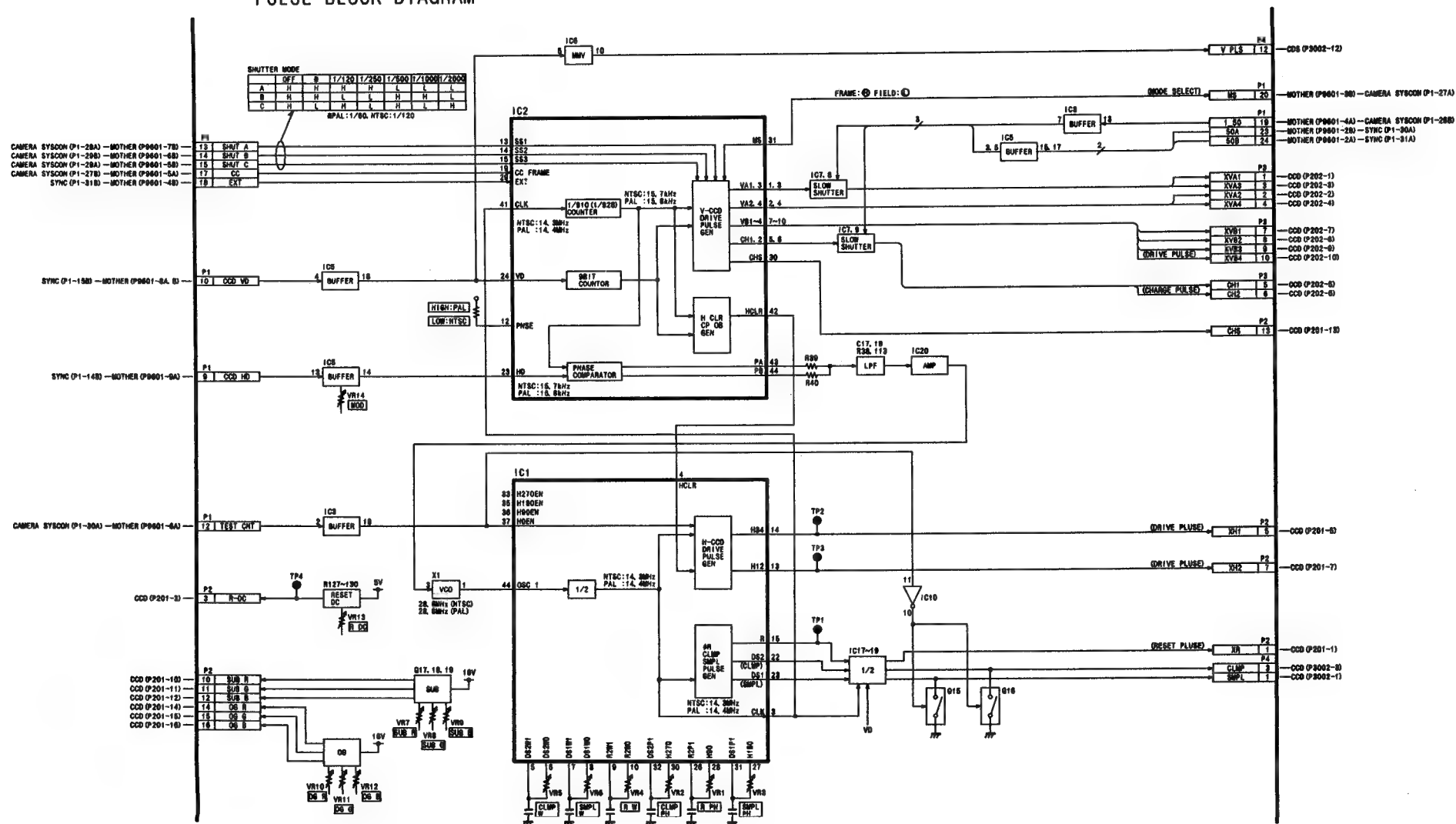
OG Voltage of R/G/B depend on **VR10,VR11** and **VR12**. SUB Voltage depend on **VR7,VR8** and **VR9**.

The width and phase of Sample Pulse are adjusted with **VR6** and **VR3**.

The width and Phase of Clamp Pulse are adjusted with **VR5** and **VR2**.

The width and Phase of Reset Pulse are adjusted with **VR4** and **VR1**.

DC voltage of Reset Pulse is adjusted with **VR13**.

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Pre Process P.C.Board

This circuit processes Dark Shading, White Shading, Pre Gamma and so on.

R S/H supplied from CDS P.C.Board is input to LPF,FL1. IC1 is fixed on the 7th side. 30DB SW makes GAIN 6dB up at Q4, 6 and 7 when GAIN setting is 30dB.

Dark Shading,DS R, is added to the output from IC1. The signal is adjusted in Gain at Q4, 6 and 7 and selected with TEST R which is a RAMP signal for test.

IC3 processes White Shading,WS R, and Auto White Balance,AWB R. VR1 adjusts pedestal level. VR3 adjusts pedestal tracking.

IC5 processes Blanking. IC6, Q22 and Q23 process Pre Gamma. VR2 adjusts the level required before A/D conversion. Finally the signal is output to DSP P.C.Board as AD R.

G S/H supplied from CDS P.C.Board is input to LPF,FL201. IC201 is fixed on the 7th side. 30DB SW makes GAIN 6dB up at Q204, 206 and 207 when GAIN setting is 30dB.

Dark Shading,DS G, is added to the output from IC201. The signal is adjusted in Gain at Q204, 206 and 207 and selected with TEST G which is a RAMP signal for test.

IC203 processes White Shading,WS G, and Auto White Balance,AWB G. VR201 adjusts pedestal level.

IC205 processes Blanking. IC206, Q222 and Q223 process Pre Gamma. VR202 adjusts the level required before A/D conversion. Finally the signal is output to DSP P.C.Board as AD G.

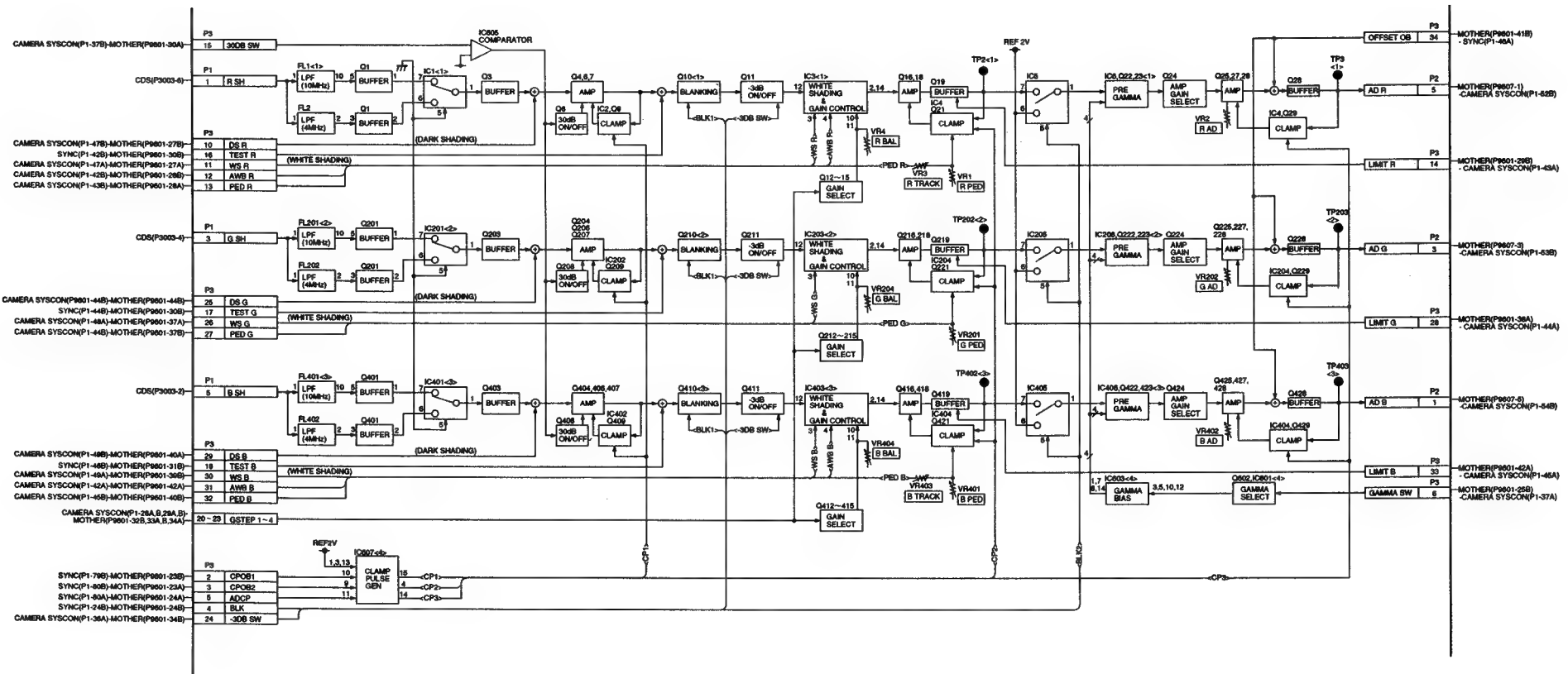
B S/H supplied from CDS P.C.Board is input to LPF,FL401. IC401 is fixed on the 7th side. 30DB SW makes GAIN 6dB up at Q404, 406 and 407 when GAIN setting is 30dB.

Dark Shading,DS B, is added to the output from IC401. The signal is adjusted in Gain at Q404, 406 and 407 and selected with TEST B which is a RAMP signal for test.

IC403 processes White Shading,WS B, and Auto White Balance,AWB B. VR401 adjusts pedestal level. VR403 adjusts pedestal tracking.

IC405 processes Blanking. IC406, Q422 and Q423 process Pre Gamma. VR402 adjusts the level required before A/D conversion. Finally the signal is output to DSP P.C.Board as AD B.

PREPROCESS BLOCK DIAGRAM



CCD P.C.Board

This Board has three CCDs and CCD drive circuits for RGB processes.

IC101 and **IC102** make the drive pulses for R CCD.

XVA1~4 generated in Pulse P.C.Board are input to **IC101**. Those pulses become V-CCD Drive Pulses for image area (**A1R~A4R**) with **V1(16V)**, **V2(GND)**, **V3(-9V)** and **V4(1V)**.

XVB1~4 generated in Pulse P.C.Board are input to **IC102**. Those pulses become V-CCD Drive Pulses for storage area (**B1R~B4R**) with **V1(16V)**, **V2(GND)**, **V3(-9V)** and **V4(1V)**. **A1R~A4R** and **B1R~B4R** are supplied to **IC103**, R CCD.

CH1 and **CH2** are charge pulses and added to V-CCD Drive Pulses for image area. **CHS** is shutter pulse and becomes a pulse of 21V in **IC101**. This is added to SUB voltage, **SUB R**, and supplied to **IC103**, R CCD. H-CCD Drive Pulses, **H1R** and **H2R**, are generated in **IC208** from **XH1** and **XH2** and supplied to **IC103**, R CCD. Reset Pulse is generated in **IC207** from **XR** and **R DC** and supplied to **IC103**, R CCD. The output signal from R CCD is supplied to CDS P.C.Board via connector **JR**.

IC201 and **IC202** make the drive pulses for G CCD.

XVA1~4 generated in Pulse P.C.Board are input to **IC201**. Those pulses become V-CCD Drive Pulses for image area (**A1G~A4G**) with **V1(16V)**, **V2(GND)**, **V3(-9V)** and **V4(1V)**.

XVB1~4 generated in Pulse P.C.Board are input to **IC202**. Those pulses become V-CCD Drive Pulses for storage area (**B1G~B4G**) with **V1(16V)**, **V2(GND)**, **V3(-9V)** and **V4(1V)**. **A1G~A4G** and **B1G~B4G** are supplied to **IC203**, G CCD.

CH1 and **CH2** are charge pulses and added to V-CCD Drive Pulses for image area. **CHS** is shutter pulse and becomes a pulse of 21V in **IC201**. This is added to SUB voltage, **SUB G**, and supplied to **IC203**, G CCD. H-CCD Drive Pulses, **H1G** and **H2G**, are generated in **IC208** from **XH1** and **XH2** and supplied to **IC203**, G CCD. Reset Pulse is generated in **IC207** from **XR** and **R DC** and supplied to **IC203**, G CCD. The output signal from G CCD is supplied to CDS P.C.Board via connector **JG**.

IC301 and **IC302** make the drive pulses for B CCD.

XVA1~4 generated in Pulse P.C.Board are input to **IC301**. Those pulses become V-CCD Drive Pulses for image area (**A1B~A4B**) with **V1(16V)**, **V2(GND)**, **V3(-9V)** and **V4(1V)**.

XVB1~4 generated in Pulse P.C.Board are input to **IC302**. Those pulses become V-CCD Drive Pulses for storage area (**B1B~B4B**) with **V1(16V)**, **V2(GND)**, **V3(-9V)** and **V4(1V)**. **A1B~A4B** and **B1B~B4B** are supplied to **IC303**, B CCD.

CH1 and **CH2** are charge pulses and added to V-CCD Drive Pulses for image area. **CHS** is shutter pulse and becomes a pulse of 21V in **IC301**. This is added to SUB voltage, **SUB B**, and supplied to **IC303**, B CCD. H-CCD Drive Pulses, **H1B** and **H2B**, are generated in **IC208** from **XH1** and **XH2** and supplied to **IC303**, B CCD. Reset Pulse is generated in **IC207** from **XR** and **R DC** and supplied to **IC303**, B CCD. The output signal from B CCD is supplied to CDS P.C.Board via connector **JB**.

Camera Syscon P.C.Board

This circuit which is composed of following ICs controls Camera unit and EVR.

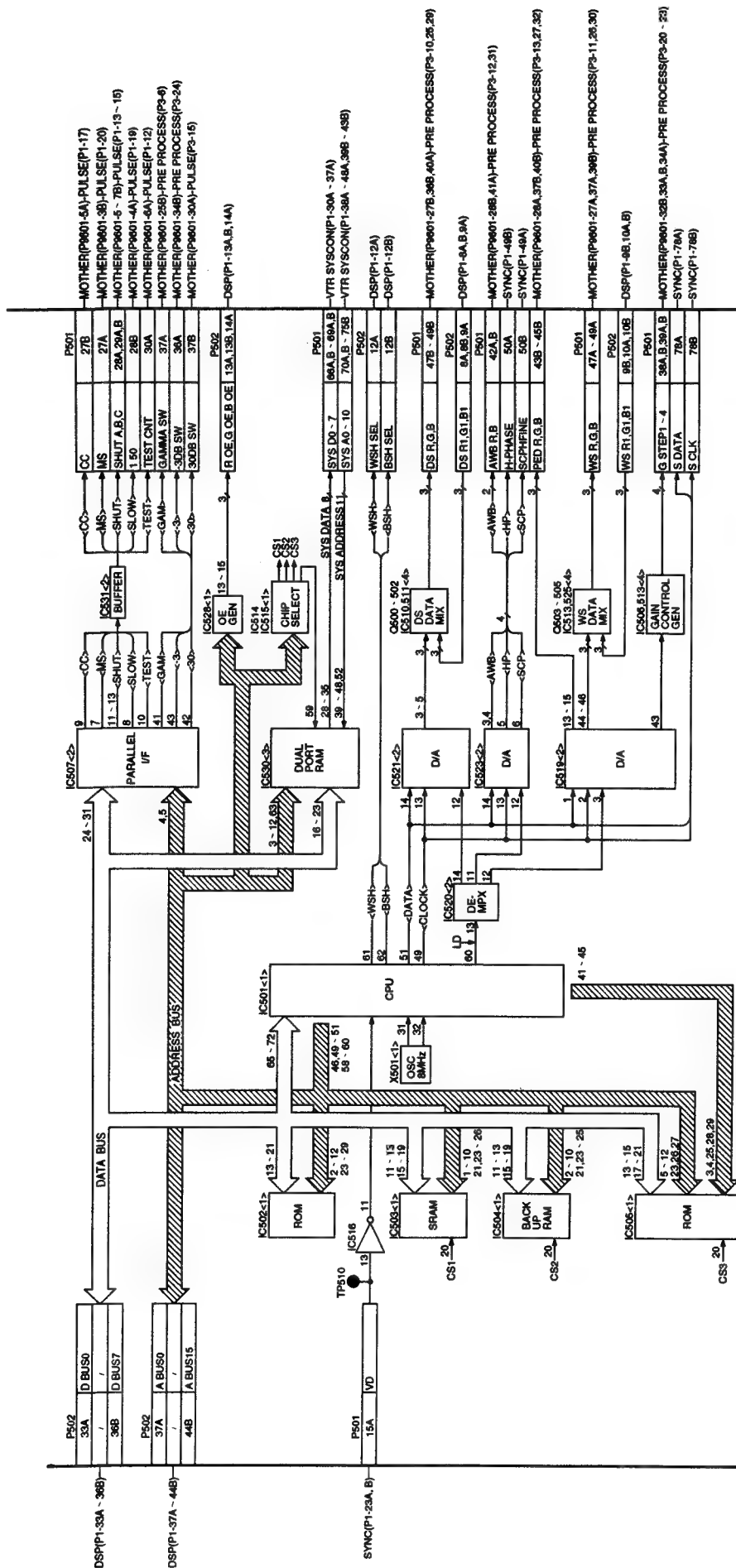
IC501	SYSCON CPU
IC502	SYSCON ROM
IC504	Back-up RAM
IC507	Parallel I/F to change Mode
IC530	Dual Port RAM for communication with VTR SYSCON

IC521 is D/A converter for Dark Shading data. This is supplied to **DS DATA MIX** which is composed of **Q500 ~ Q502, IC510** and **IC511**. The data is added to RGB of **DS R1,G1,B1** and output as **DS R,G,B**.

IC519 is D/A converter for White Shading data. This is supplied to **WS DATA MIX** which is composed of **Q503 ~ Q505, IC513** and **IC525**. The data is added to RGB of **WS R1,G1,B1** and output as **WS R,G,B**.

The data of **AWB, H phase** and **sub-carrier** are D/A converted at **IC523**. Each of those is output as **AWB ,R B, H-PHASE** and **SCPHASE**.

CAMERA SYSCON BLOCK DIAGRAM



DSP P.C.Board

DSP is the abbreviation of Digital Signal Processor and processes Blemish Compensation, Gamma, Knee, Masking, Detail and so on at IC101 and IC102.

AD R, AD G and AD B supplied from Pre Process P.C.Board are A/D converted to 10bits of parallel signals at IC4, IC5 and IC6. VR1 adjusts the reference voltage for A/D conversion. R, G, and B converted to digital signal are supplied to IC101. On the other hand Dark Shading data is supplied to IC301, SRAM, via IC302 and IC305. White Shading data is also supplied to IC304, SRAM, via IC302 and IC305. Both are D/A converted at IC303 and IC306 and then supplied to Camera Syscon P.C.Board.

R, G, B input to IC101 are processed with Blemish Compensation, Gamma, Knee and Masking. Then they are supplied to IC102. At the same time the detail signal made inside IC101 are processed with Level Dependent, Dynamic Noise Suppress and Dynamic Detail at IC102.

1/2 pitch of CCD spatial offsets is compensated in IC102. Moreover Chroma Detail and Fresh(Skin) Detail are produced from R, G and B and then added to R, G and B as well as ordinary details mentioned above.

The multiplexers after 1/2 pitch of CCD spatial offsets compensation switch input signal or internal color bar.

After that Clipping and Blanking are performed.

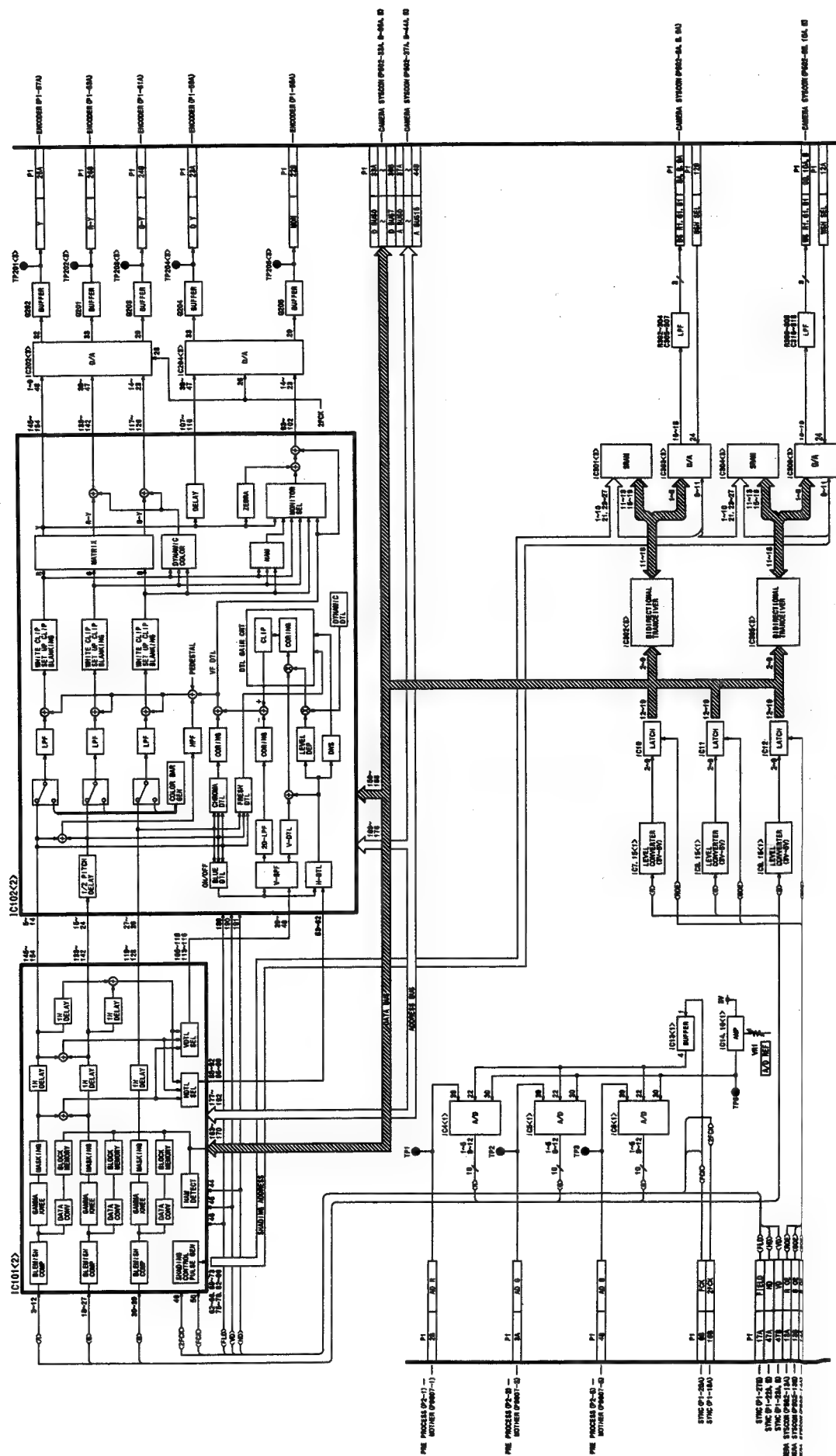
MATRIX converts RGB to Y/R-Y/B-Y.

Outputs from 145th~154th pins are Y, 133th~142nd pins are R-Y, and 117th~126th pins are B-Y. All of those are converted to analog signals at IC202 and supplied to Encoder P.C.Board.

D Y output from 107th~116th pins are delayed Y signal which is required to encode composite signal in Encoder P.C.Board.

Outputs from 93th~102nd pins are Y, R, G, B or NAM for EVF which have ZEBRA. This is converted to analog signal at IC204 and supplied to Encoder P.C.Board.

DSP BLOCK DIAGRAM



Encoder P.C.Board

Encoder converts inputs from DSP to composite and component signals.

IC4 is an encoder. **D Y**(Y for composite) is input to 8th pin, **R-Y** to 24th pin, and **B-Y** to 1st pin.

VR106 adjusts the level of **D Y**. Sync. **ASync N** is added to **D Y**. **D Y** goes to **IC4**. **VR105** adjusts the level of sync.

R-Y is adjusted in level with **VR201** and supplied to **IC4**. On the other hand it is output as Pr signal **PR V**, **PR 26P**. **PR V** is to be recorded in AJ-D700. **PR 26P** is to be output via 26 pins connector(Optional).

SW201 selects M2 level or β cam level for 26 pins connector.

B-Y is adjusted in level with **VR202** and supplied to **IC4**. On the other hand it is output as Pb signal **PB V**, **PB 26P**. **PB V** is to be recorded in AJ-D700. **PB 26P** is to be output via 26 pins connector(Optional).

SW202 selects M2 level or β cam level for 26 pins connector.

Sub-carriers are supplied to **IC4** as **PR SC** and **PB SC**. **ABF** is Burst signal and is adjusted in level with **VR6**.

R-Y and **B-Y** are modulated to C signal at **IC4**. **VR10** adjusts the C level. C signal returns to **IC4** and encoded with Y. Mixed signal is output from 12th pin. After DC(**VR11**) and level(**VR12**) are adjusted, composite signal has three ways; **CAM OUT**, **CAM 26P** for 26 pins connector, **MON OUT** for VIDEO OUT connector. **VR401** adjusts the level of **MON OUT**.

VR102 adjusts the level of ordinary Y. Then sync., **ASync**, is added to Y. **VR101** adjusts the level of sync. After pedestal is added at **IC101**, Y is output as **Y V** and **Y 26P**. **Y V** is to be recorded in AJ-D700. **Y 26P** is to be output via 26 pins connector(Optional).

MON is Y,R,G,B or NAM for EVF and is adjusted in level with **VR104**. Sync., **ASync M**, is added to that signal. Sync level is adjusted with **VR103**. **IC401** adds superimpose. **IC402** selects **PB SITE** for playback or **RET BNC** for Return. After that the signal is supplied to EVF as **VF OUT**. On the other hand **IC403** selects VF signal or composite signal for VIDEO OUT connector at **IC403**. The selected signal is supplied to Rear Jack P.C.Board as **MON OUT**.

VR402 adjusts the level of PB signal.

VR403 adjusts the level of RETURN input.

[illegible]

Sync. P.C.Board

This circuit is composed of IC27 and IC11.

GL IN is input from GEN LOCK IN connector. Composite sync. separated at IC34 is supplied to 98th pin of IC27 and 85th pin of IC11. Burst signal is separated at IC2 and IC3 and supplied to 69th pin of IC27. H SYNC. is separated from the sync. input from 98th pin of IC27. Then H SYNC. is output from 101st pin. This is adjusted in phase at IC22 and input again from 43th pin.

X4 located at left side of diagram generates reference 4FSC. H sync. is generated based on that 4FSC. This H sync. or HR, external input sync. input from 45th pin is selected at IC27. Selected signal is output from 46th pin as HO. X1 located at top of diagram generates 2FCK locked to HO and then supplied to IC11.

IC11 generates clocks which is used in camera unit and locked to that 2FCK.

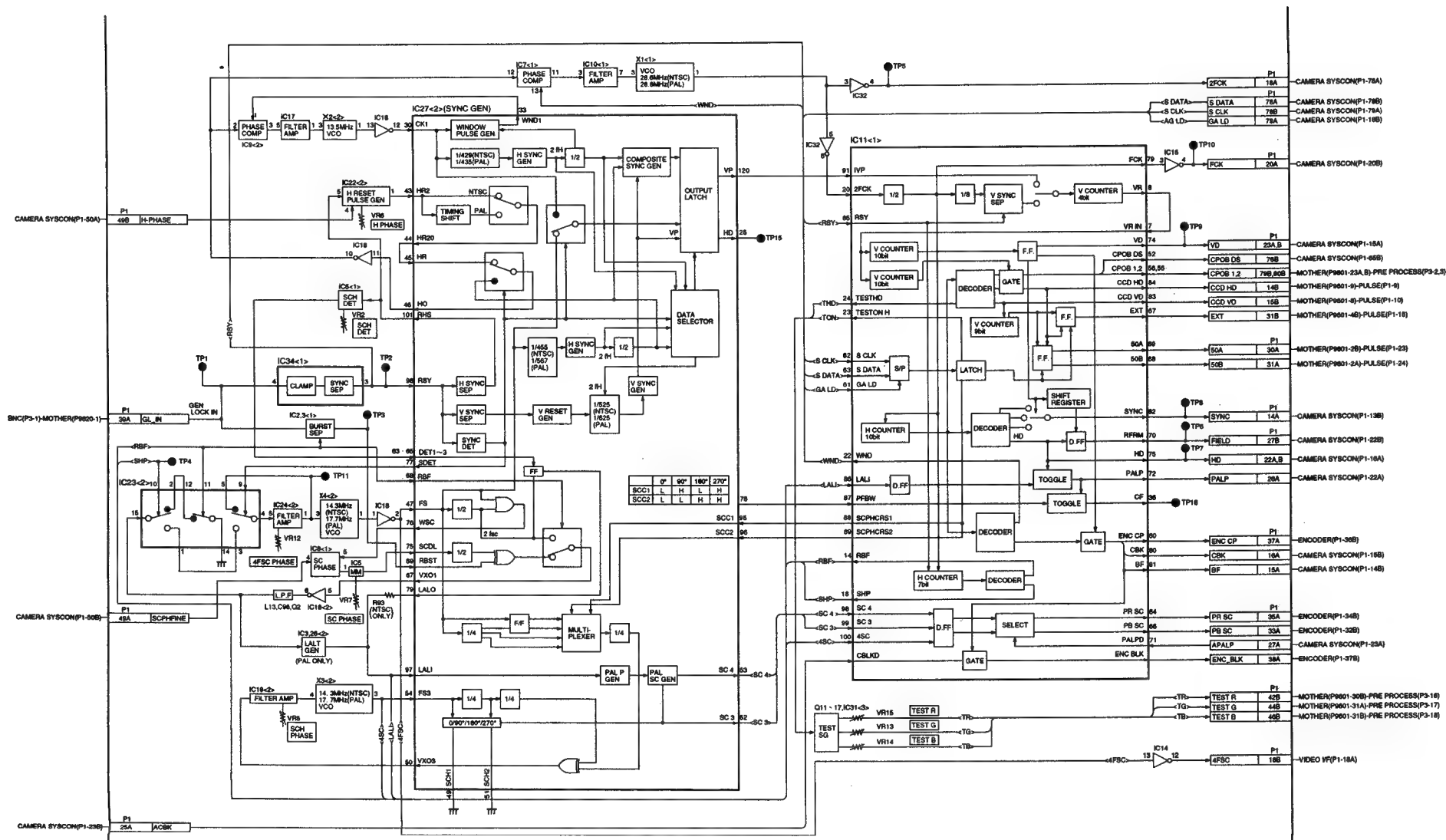
PLL located at top left of diagram which is composed of IC9 of phase comparator and X2 of 13.5MHz oscillator drives IC27.

PLL located at bottom left of diagram which is composed of IC19 of phase comparator and X3 of oscillator adjusts SCH.

The signals at 95th and 96th pins of IC27 are used for sub-carrier adjustment.

Q11~Q17 and IC31 generate Ramp signal for testing which is adjusted in level with VR13~VR15.

5-17



Video I/F P.C.Board

VIDEO I/F is the interface between camera unit and VTR unit.

Y V is input from Encoder. **IC101** selects **Y V** or special signal for factory. **IC101** is switched by **SG L** which is always high. After **VR104** adjusts the level, **Y** is converted to digital signal at **IC208**. DC level of clamp depends on **VR203**.

Sync. is separated from **Y** at **IC201**. PLL is composed of **IC205** of phase comparator, **X201** of 13.5MHz oscillator and **IC301**. This PLL generates the reference clock locked to input signal.

PB V is input from Encoder. **IC102** selects **PB V** or special signal for factory. After **VR107** adjusts the timing and **VR108** adjusts the level, **Pb** is converted to digital signal at **IC207**. DC level of clamp depends on **VR204**.

PR V is input from Encoder. **IC104** selects **PR V** or special signal for factory. After **VR111** adjusts the timing and **VR112** adjusts the level, **Pr** is converted to digital signal at **IC212**. DC level of clamp depends on **VR205**.

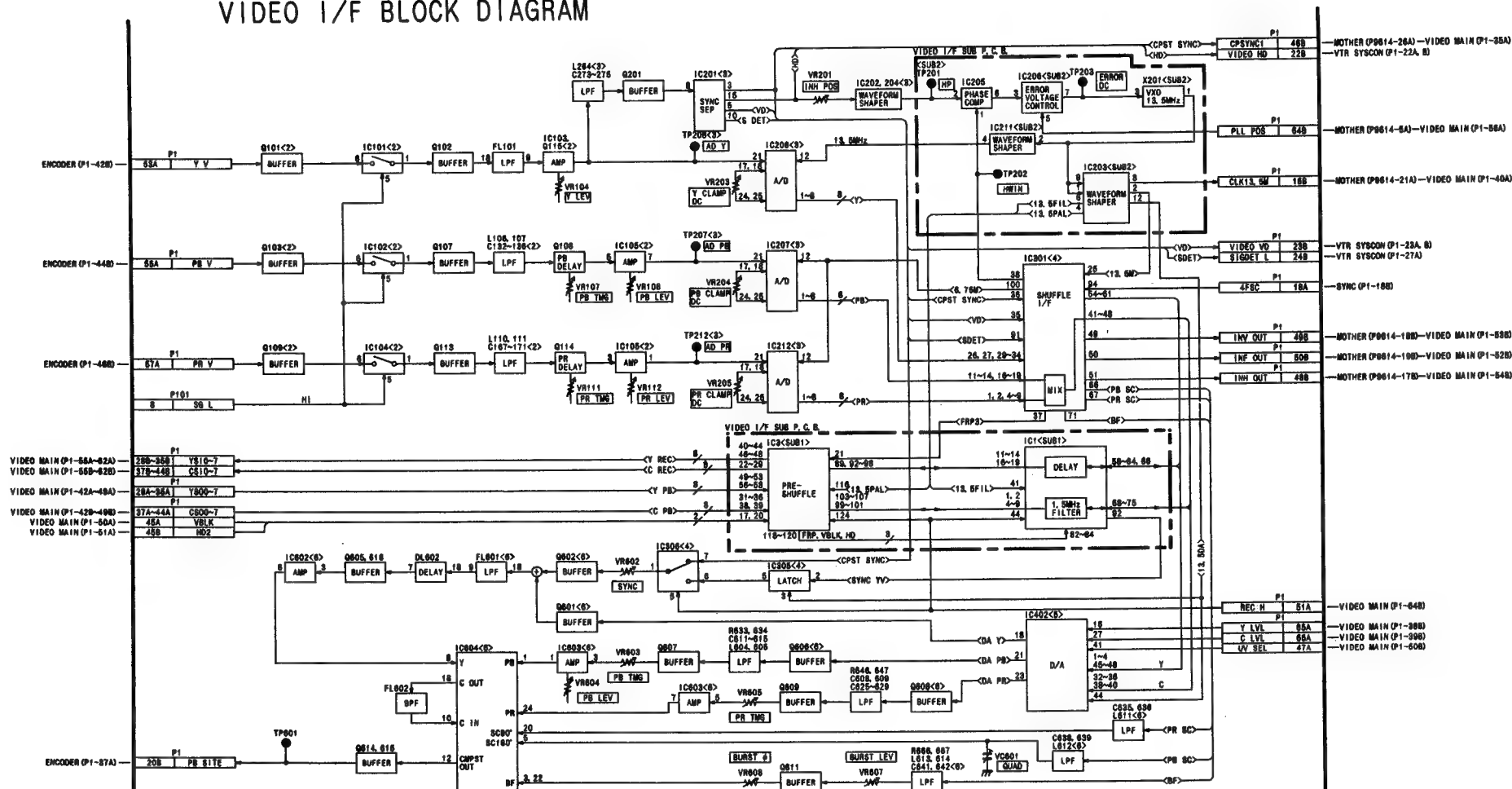
Y, **Pb** and **Pr** converted to 8bits of digital signal are supplied to **IC301**. **Pb** and **Pr** are mixed and supplied to **IC1** which is a filter on Video I/F sub P.C.Board as **YSI** and **CSI**. Each of those is 8bits of digital signal. **IC3**, Pre-shuffle on Video I/F sub P.C.Board, assigns data allocation because chroma data is thinned in Shuffle IC of Video Main circuit.

IC402 is a D/A converter where playback signal is mainly processed. **Pb** level is adjusted with **VR604**. **Y** level and **C** level are adjusted with **EVR** in the D/A converter. **IC604** is an encoder. **Pb timing** are adjusted with **VR603** and **Pr timing** are adjusted with **VR605**.

INH OUT is the pulse locked to input signal, which has the frequency of H. **INV OUT** is the pulse locked to input signal, which has the frequency of V. **INF OUT** is the pulse locked to input signal, which has the frequency of frame.

S DET output from **IC201** detection signal which is LOW when sync. is detected in external input.

5-19



VTR Syscon P.C.Board

This circuit is composed of CPU, Parallel I/O, Time Code and Character Generator.

Inputs from the operation panel are **ZEBRA**, **PLAY**, **STOP**, **FF**, **REW**, **EJECT**, **START**, **RET**, **SHUT**, **AWB** and **ABB SWs**. Those signals are supplied to **IC1** of CPU, via **IC201** of Parallel I/O.

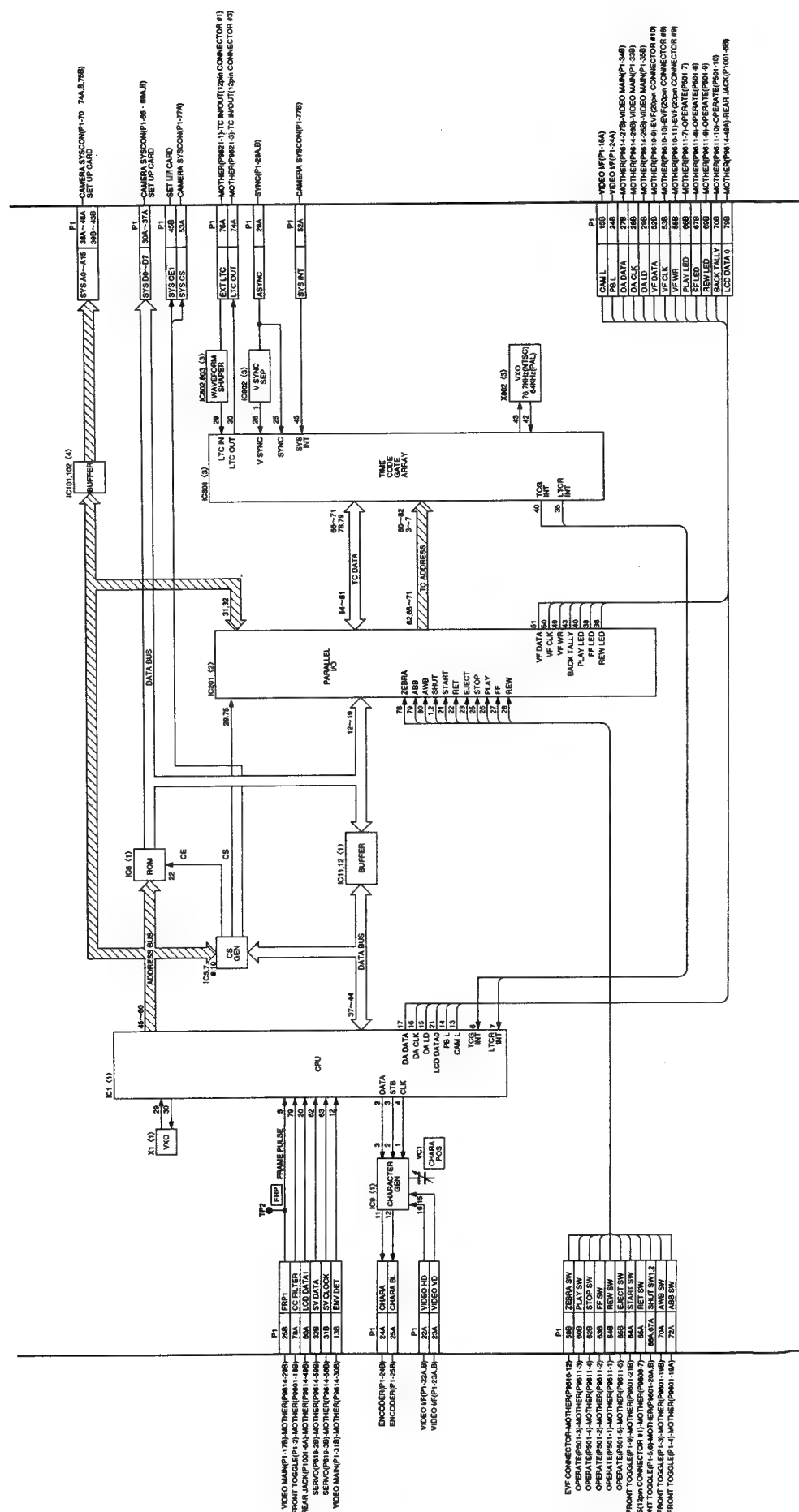
VTR Syscon and Camera Syscon communicate by **SYS A0~A15** and **SYS D0~D7**. **SYS A0~A15** are address lines. **SYS D0~D7** are data lines.

IC9 generates character. The character is supplied to Encoder P.C.Board.

IC801 is time code gate array which includes time code reader and generator. **29th** pin and **30th** pin are IN/OUT for external TC, which are supplied to 12 pins Multi Connector.

IC6 is Syscon ROM.

VTR SYSCON BLOCK DIAGRAM



Servo P.C.Board

This circuit has two CPUs. CPU1 controls cylinder and capstan. CPU2 controls reel and mechanism.

CAP AFG1 and CAP AFG2 are capstan FGs. Those are supplied to IC100 of CPU1. CAP M1~M3 drive the capstan. CAP VH1~VH3 are fed back to CPU1.

CYL FG+ is cylinder FG. CYL PG+ is cylinder PG. Those are supplied to IC100 of CPU1. CYL M1~M3 drive the cylinder. CYL VH1~VH3 are fed back to CPU1.

HID R is R/P HSW. HID P is PB HSW. Played back CTL is input as CTL HEAD P. Recording CTL is also output as CTL HEAD P. VR101 adjusts PG shifter which shifts HSW timing.

SRL FG1 and SRL FG2 are S-reel FGs. Those are supplied to IC501 of CPU2. SRL M1~M3 drive the S-reel. SRL H1~H3 are fed back to CPU2.

TRL FG1 and TRL FG2 are T-reel FGs. Those are supplied to IC501 of CPU2. TRL M1~M3 drive the T-reel. TRL H1~H3 are fed back to CPU2.

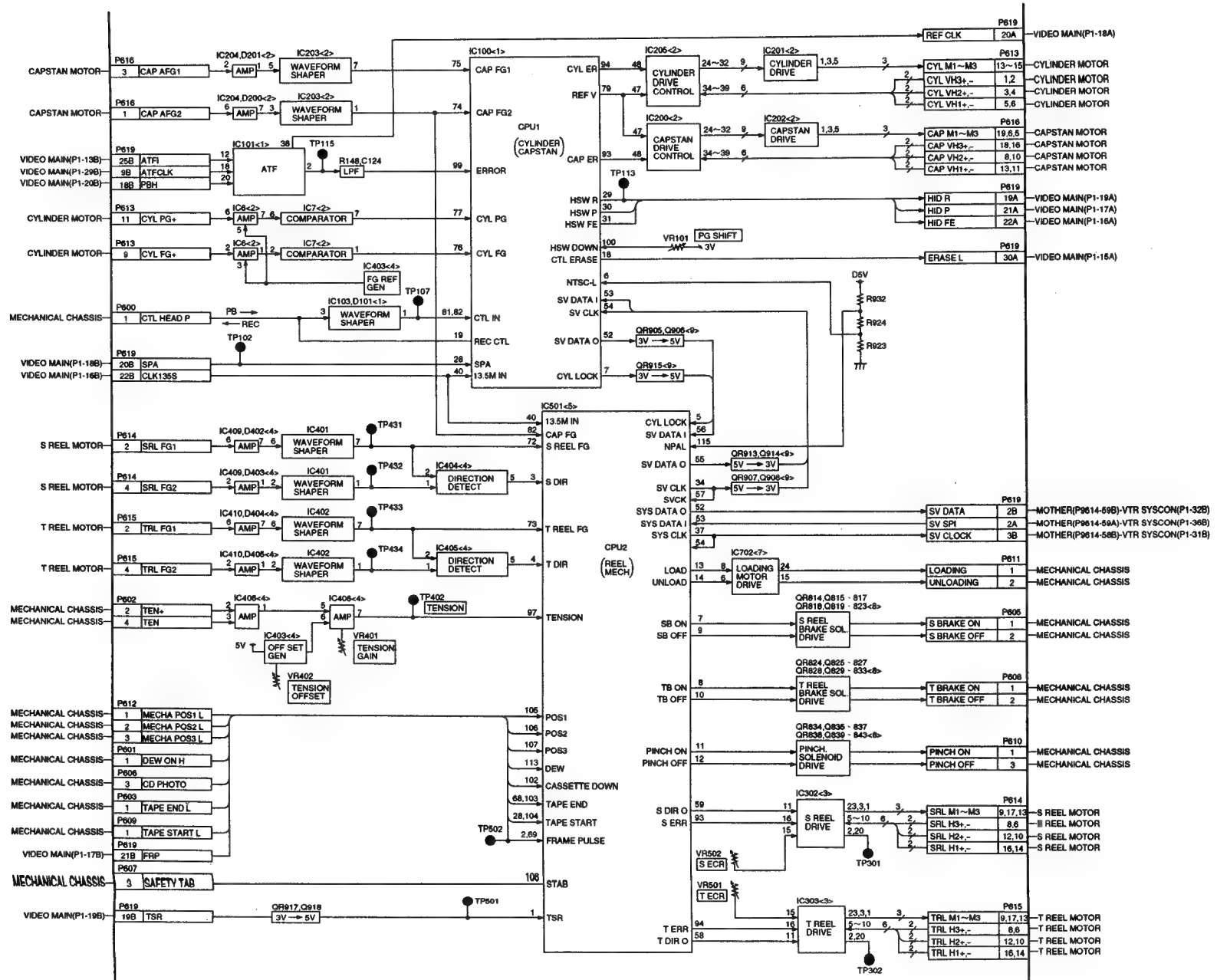
IC504 generates reference voltages which are compared with error voltages, S ERR and T ERR. Reference voltages depend on VR501 and VR502.

TEN+ and TEN- are input from tension sensor. VR401 adjusts tension gain. VR402 adjusts tension offset.

Abbreviations

ER, ERR	ERROR
DIR	DIRECTION
SV	SERVO
SB	S-REEL BRAKE
TB	T-REEL BRAKE
POS	POSITION

SERVO BLOCK DIAGRAM



RF P.C.Board

(For recording) Input is HSE.(Top left) EXT CW is CW which is input from connector P2 when measuring C/N ratio. IC8 selects HSE or EXT CW. VR200 adjusts the duty of REC data at IC208. Q208 and Q209 are recording amplifiers for L ch. REC CUR L adjusts recording current(L ch). REC FRE L adjusts frequency characteristics(L ch). Q202~Q205 switch mode REC or PB in L ch. RP HEAD L P and N are output to drum.

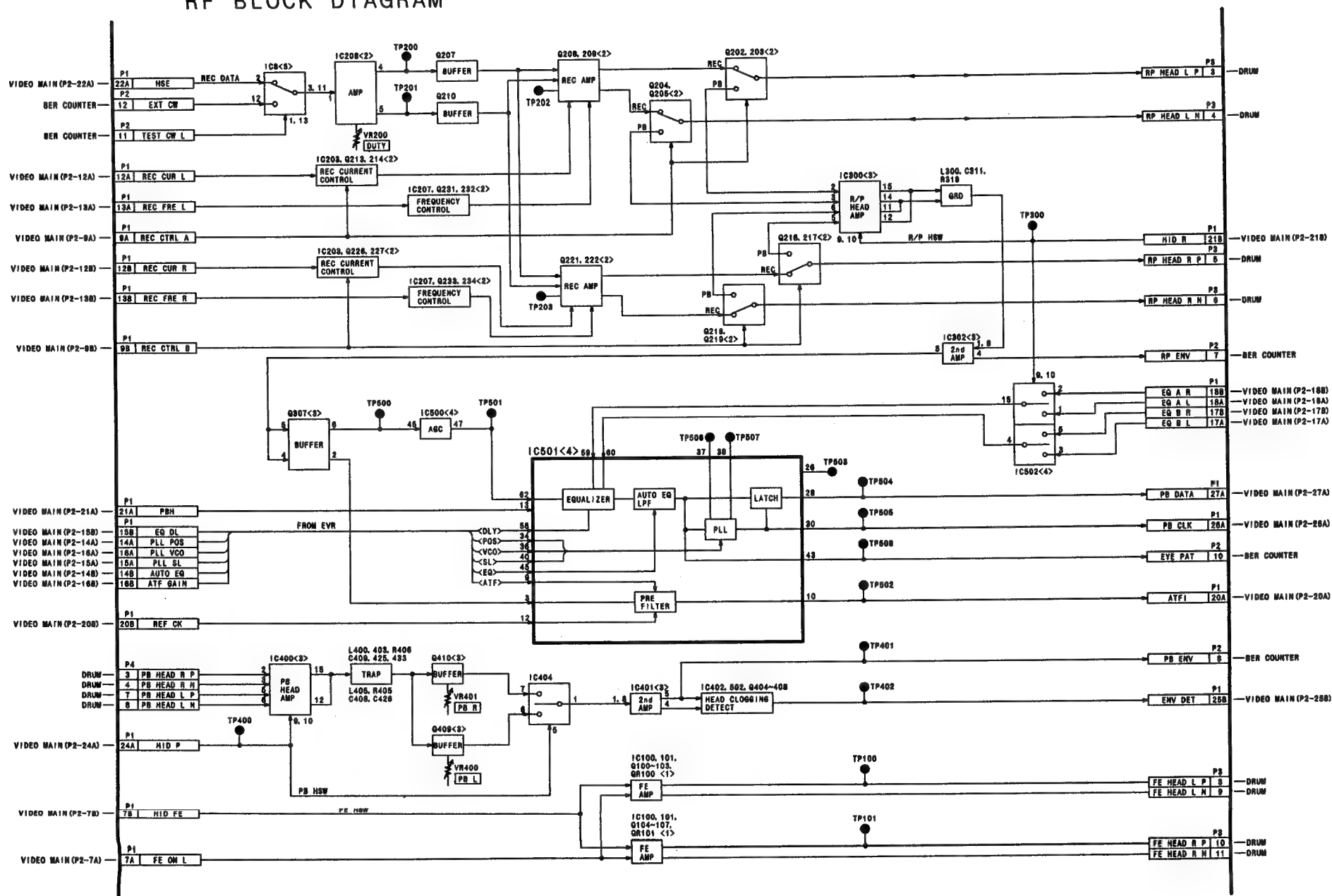
Q221 and Q222 are recording amplifiers for R ch. REC CUR R adjusts recording current(R ch). REC FRE R adjusts frequency characteristics(R ch). Q216~Q219 switch mode REC or PB in R ch. RP HEAD R P and N are output to drum.

(For playback) RP HEAD L P and N are input from drum for L ch and supplied to IC300 of R/P Head Amp via Q202~Q205. RP HEAD R P and N are input from drum for R ch and supplied to IC300 of R/P Head Amp via Q226~Q219. L ch and R ch are multiplexed at IC300 by HID R which is R/P HSW. Both channels data are supplied to IC501 and equalized by EVR data which are EQ DL, PLL POS, PLL SL, AUTO EQ, EQ α R, EQ α L, EQ β R and EQ β L. Outputs from IC501 are PB DATA and PB CLK.

PB HEAD R P and N and PB HEAD L P and N are supplied to IC400 which multiplexes R ch and L ch by HID P of PB HSW. Monitoring those signals detects head clogging. Information of head clogging is supplied to VIDEO MAIN P.C.Board as ENV DET. VR400 and VR401 adjusts detection levels. TRAP traps the frequency of the current of Flying Erase Head.

RP ENV, PB ENV and EYE PAT are available at BNCs of B.E.R.Counter.

5-25



Video Main P.C.Board

This circuit processes shuffling, compression, ECC and 24-25 conversion for recording. In addition to this it makes a reverse process for playback.

(For recording) The Y to be recorded is input to **IC1**, SHUFFLE, as **YSI0~7**. The C to be recorded is also input to **IC1**, SHUFFLE, as **CSI0~7**. **IC2** is a shuffling memory. **IC24** supplies the clocks for **IC1**. Both signals of VIDEO are shuffled and supplied to **IC3** to be compressed.

Audio serial data, **SDTO1**, is supplied from AUDIO LCD P.C.Board to **IC11** via Rear Jack P.C.Board.

IC13, VCO, generates master clock for audio. **IC33** compensates the timing between video and audio. Audio signal is shuffled at **IC3**. Video data is compressed at **IC3**. Both are multiplexed and supplied to ECC of **IC4**. Video data is deshuffled at **IC4**. ECC codes are added to video and audio data, which are supplied to **IC5**. When playback, audio signal is separated **IC11** and output as **S DATA**.

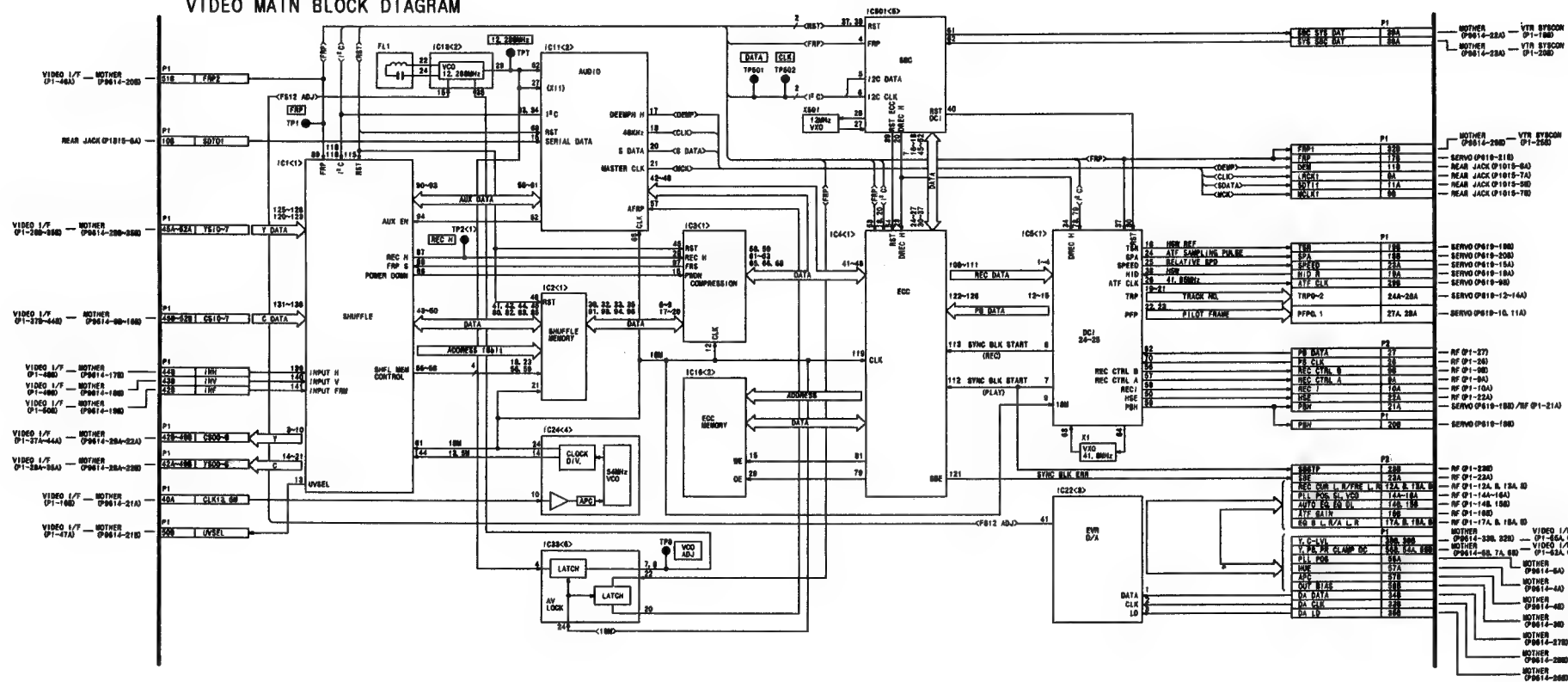
IC5 is DCI which means the IC for digital signal processing. DCI makes two kinds of pilot signal for ATF by 24-25 conversion. One has the frequency of 465kHz, the other has the frequency of 697.5kHz.

HSE is the data to be recorded. **REC CTRL A** and **B** switch recording currents ON/OFF in RF circuit.

(For Playback) During playback the same circuit works the opposite process to recording. Input signal from RF Board is **PB DATA** which is supplied to DCI.

(Others) **IC22** is D/A converter for EVR data. **IC501** is SBC which receives sub code data from VTR Syscon P.C.Board and adds it to video data.

5-27



Audio LCD P.C.Board

This circuit has three kinds of audio inputs.

CH1 IN H and **CH1 IN C** are supplied to **RY101** where attenuater ON/OFF is switched. **CH2 IN H** and **CH2 IN C** are supplied to **RY201** where attenuater ON/OFF is switched. **F MIC IN H** and **F MIC IN C** are inputs from front microphone. When phantom microphone is used, 48V is supplied based on **SW 12V**. All of those are supplied to **IC1** of MIC AMP where gains are controlled by **IC603**, Audio CPU.

CH1 is output from the 24th pin of **IC1**. **SW701** switches balance or unbalance output for 26pin connector. **IC15** of HPF cuts the wind noise. **IC4** switches the HPF ON/OFF. **VR101** coarsely adjusts the level. **FRONT VR** which comes from the VR in front of camera recorder also adjusts **CH1** recording level. **IC105** switches the mode. **VR102** adjusts recording level. **IC6** and **Q4** of TEST SG generate 1kHz of tone signal. The level of test tone is adjusted with **VR2**. **IC105** switches test tone or input audio. The signal to be recorded is A/D converted at **IC8** and supplied to Video Main P.C.Board via Rear Jack P.C.Board as **SDTO1**.

CH2 is output from the 13th pin of **IC1**. **IC15** of HPF cuts the wind noise. **IC4** switches the HPF ON/OFF. **VR201** coarsely adjusts the level. **IC205** switches the mode. **VR202** adjusts recording level. **IC205** switches test tone or input audio.

The audio signal for output is input as **SDTI1** from Video Main P.C.Board via Rear Jack P.C.Board. It is D/A converted at **IC8** and supplied to MIX AMP and MONITOR SELECT. **IC6** and **IC10** of MIX AMP mixes **CH1** and **CH2**. **IC11** selects **CH1**, **CH2** or MIX as monitor outputs L ch and R ch. Selected signal or cue audio is selected at **IC12**. Monitor outputs are supplied as **MON VR IN L** and **R** to ALARM/MONITOR P.C.Board. They return as **MON VR OUT L** and **R** with alarm, **ALARM VR OUT**. **HP OUT L** and **R** are for headphone. **SP OUT** is for speaker.

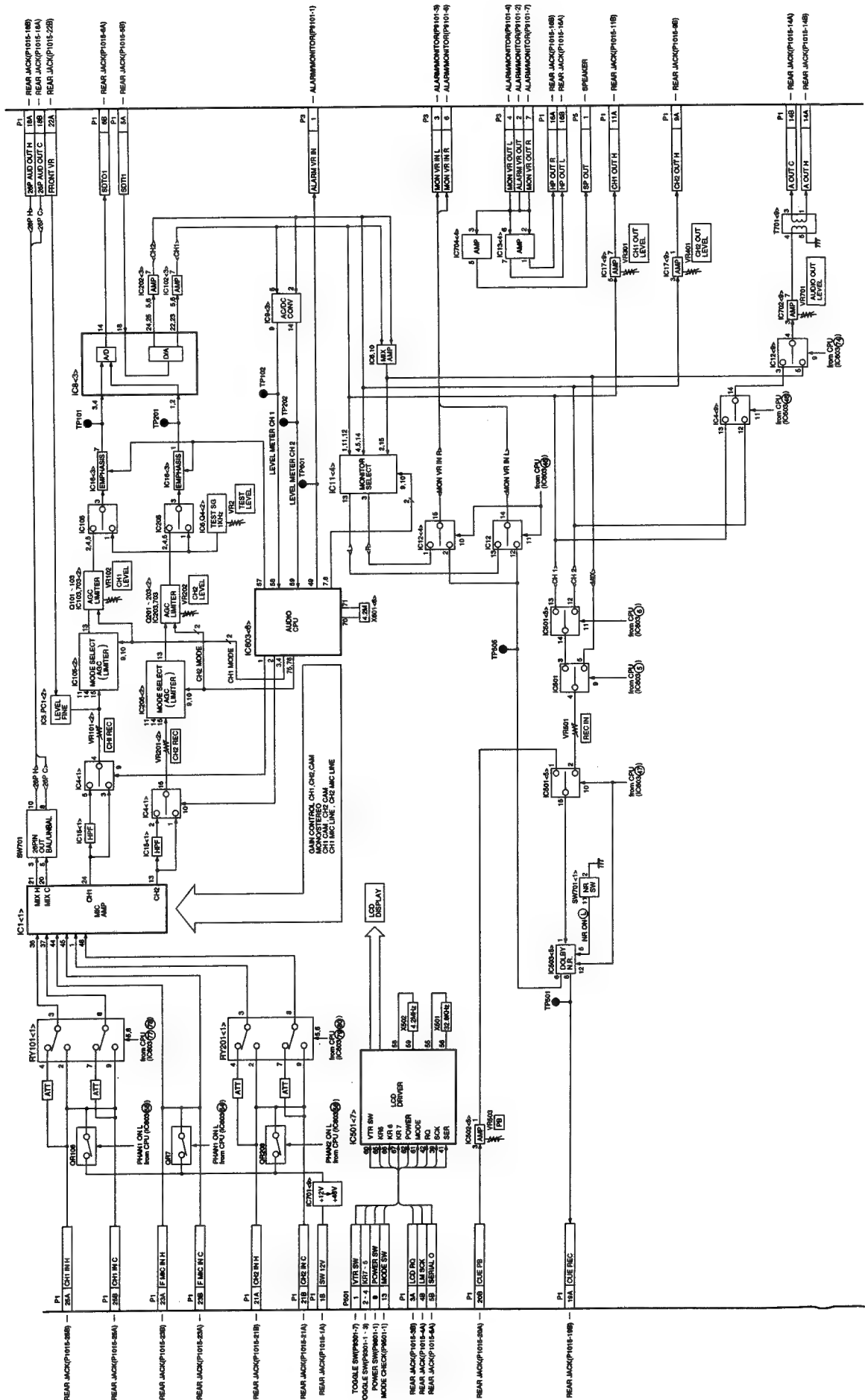
IC17 adjusts **CH1 OUT** level and **CH2 OUT** level with **VR301** and **VR401**. Those outputs, **CH1 OUT H** and **CH2 OUT H**, are supplied to 12pin multi connector.

IC501 selects recording signal for CUE audio. **VR501** adjusts recording level in CUE audio. **VR503** adjusts playback level in CUE audio.

A OUT H and **C** are supplied to Rear Jack P.C.Board for AUDIO OUT. **VR701** adjusts the level.

IC501 drives LCD.

AUDIO LCD BLOCK DIAGRAM



The diagram illustrates the internal circuitry and component layout of a video recording system. It features four main printed circuit boards (PCBs) and their interconnections:

- VIDEO P.C. Board:** Located at the top left, it includes a video input connector (CH001), a video input (V IN), a video output (V OUT), and various control lines (SP CLK, SP WR, SP DATA, ZERBA). It contains ICs like IC001, IC002, IC003, IC004, IC005, IC006, IC007, IC008, IC009, IC010, IC011, IC012, IC013, IC014, IC015, IC016, IC017, IC018, IC019, IC020, IC021, IC022, IC023, IC024, IC025, IC026, IC027, IC028, IC029, IC030, IC031, IC032, IC033, IC034, IC035, IC036, IC037, IC038, IC039, IC040, IC041, IC042, IC043, IC044, IC045, IC046, IC047, IC048, IC049, IC050, IC051, IC052, IC053, IC054, IC055, IC056, IC057, IC058, IC059, IC060, IC061, IC062, IC063, IC064, IC065, IC066, IC067, IC068, IC069, IC070, IC071, IC072, IC073, IC074, IC075, IC076, IC077, IC078, IC079, IC080, IC081, IC082, IC083, IC084, IC085, IC086, IC087, IC088, IC089, IC090, IC091, IC092, IC093, IC094, IC095, IC096, IC097, IC098, IC099, IC100, IC101, IC102, IC103, IC104, IC105, IC106, IC107, IC108, IC109, IC110, IC111, IC112, IC113, IC114, IC115, IC116, IC117, IC118, IC119, IC120, IC121, IC122, IC123, IC124, IC125, IC126, IC127, IC128, IC129, IC130, IC131, IC132, IC133, IC134, IC135, IC136, IC137, IC138, IC139, IC140, 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SECTION 6

EXPLODED VIEWS & PARTS LIST

Note:

1. *Be sure to make your orders of replacement parts according to this list.
2. Unless otherwise specified, all resistors are in OHMS, K=1,000 OHMS, all capacitors are in MICROFARADS (μ F), P= μ F.
3. The P.C. Board units marked with "■" shown below the main assembled parts.
4. The parts marked with Ⓔ on the exploded view show the electric parts.
5. **IMPORTANT SAFETY NOTICE**
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components, use only the same type.
6. The marking (RTL) indicates the retention time is limited for this item.
After the discontinuation of this assembly in production, it will no longer be available.

<<Abbreviations for part>>

<NAME>

<DESCRIPTIONS>

C. CAPACITOR	:	CERAMIC CAPACITOR
C. CAPACITOR CH	:	CERAMIC CHIP CAPACITOR
E. CAPACITOR	:	ELECTROLYTIC CAPACITOR
G. CAPACITOR	:	GLASS CAPACITOR
M. CAPACITOR	:	MICA CAPACITOR
P. CAPACITOR	:	PLASTIC FILM CAPACITOR
S. CAPACITOR	:	SEMI-CONDUCTOR CAPACITOR
T. CAPACITOR	:	TANTALUM CAPACITOR
TRIMMER	:	TRIMMER
C. RESISTOR	:	CARBON RESISTOR
F. RESISTOR	:	FUSE RESISTOR
M. RESISTOR	:	METAL OXIDE RESISTOR
M. RESISTOR CH	:	METAL OXIDE CHIP RESISTOR
S. RESISTOR	:	SOLID RESISTOR
V. RESISTOR	:	VARIABLE RESISTOR
W. RESISTOR	:	WIRE WOUND RESISTOR
COMBI. TR-R	:	TRANSISTOR-RESISTOR COMBINATION PARTS
COMBI. R-R	:	RESISTOR-RESISTOR COMBINATION PARTS
COMBI. C-R	:	CAPACITOR-RESISTOR COMBINATION PARTS
COMBI. C-R-R	:	CAPACITOR-RESISTOR-COIL COMBINATION PARTS
P.C. BOARD	:	PRINTED CIRCUIT BOARD
W/COMPONENT	:	WITH COMPONENT

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MECHANICAL CHASSIS ASSEMBLY(1)	PRT-4
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EVF ASSEMBLY	PRT-7
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SERVICING FIXTURES & TOOLS

AJ-D800E


[illegible]

Components identified with the mark Δ have the special characteristics for safety. When replacing any of these components, use only the same type.

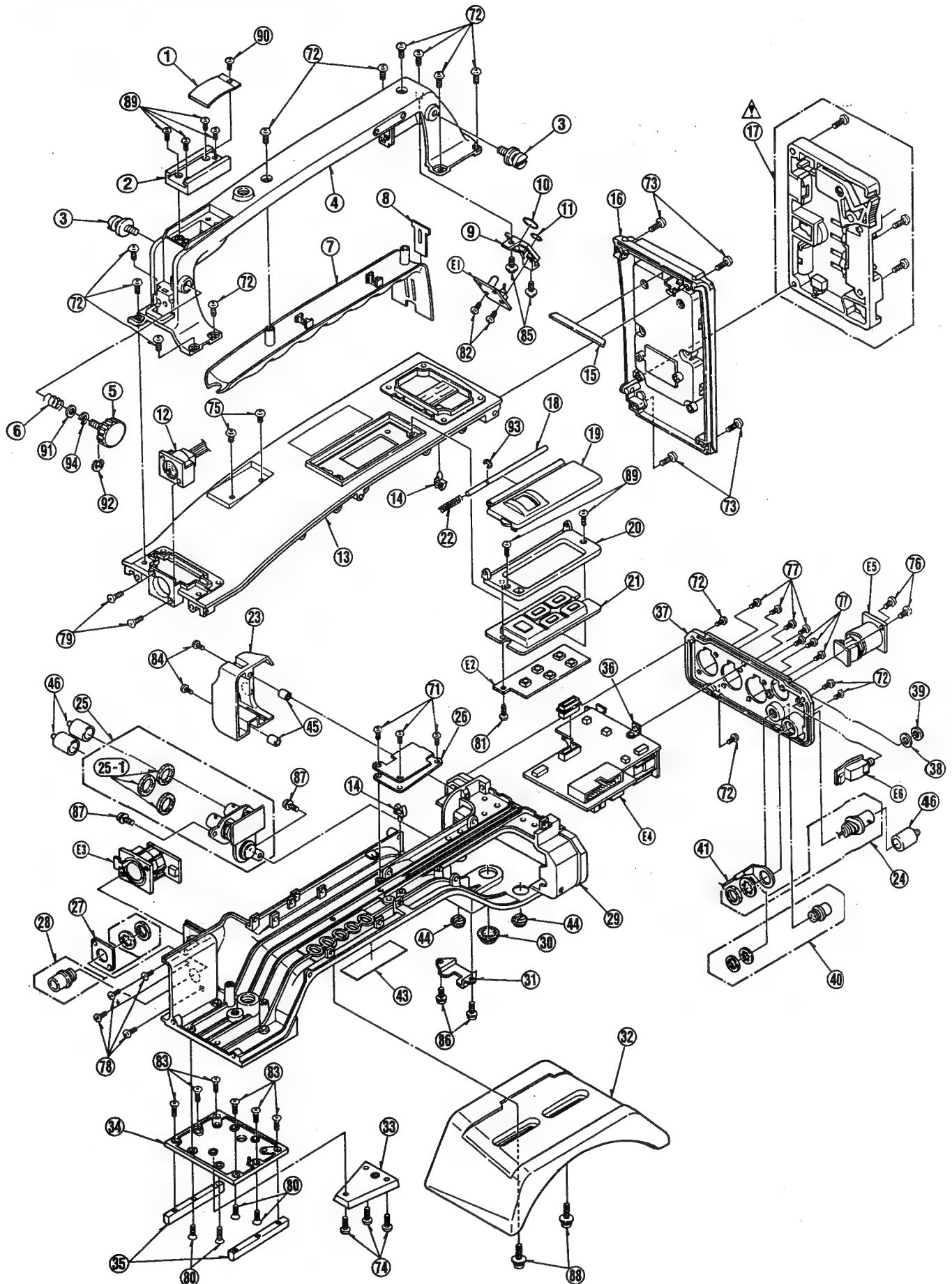
FRAME ASSEMBLY (1)

AJ-D800E

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	4G28145	LEAF SPRING	1		E1	VEP80858A	P. C. BOARD W/COMPONENT	1	
2	V5MA0046A4	CAMERA SHOE	1		E2	VEP86149A	VTR OPERATION P. C. BOARD	1	
3	VMS4284	BELT HOOK PIN	2		E3	VEP80A14A	FRONT MIC C. B. A.	1	
4	VKH0386	HANDLE	1		E4	VEP01786A	REAR JACK C. B. A.	1	
5	VGU7080	SIDE U LOCK KNOB	1		E5	VEP00X87A	DC INPUT P. C. BOARD	1	
6	VMB1615	SPRING	1		E6	VEP00W08B	HEADPHONE C. B. A.	1	
7	VKF2481	HANDLE COVER	1						
8	VKF2516	CARD COVER	1						
9	VGL0720	TALLY COVER	1						
10	VMG0950	P8 O_RING	1						
11	VMG0955	P4 O_RING	1						
12	VEE9426	EVF CONNECTOR	1						
13	VGM1257	UPPER CASE	1						
14	VJF0909	CABLE CLAMPER	2						
15	VGFO515	BATTERY CABLE HOLDER	1						
16	VYK7453	BACK CASE U	1						
Δ 17	VJF1125	BATTERY HOLDER	1						
18	VMS5860	DOOR SHAFT	1						
19	VKF2486	VTR OPERATION DOOR	1						
20	VKG2214	VTR OPERATION BASE	1						
21	VGU7082	VTR OPERATION BUTTON	1						
22	VMB2917	DOOR SPRING	1						
23	VKF2515	CONNECTOR COVER	1						
24	VJS1440	CONNECTOR (FEMALE)	1						
25	VEK8021	SIDE L CONNECTOR U	1						
25-1	VMG0943	CONNECTOR INSULATION CUSHION	3						
26	VSC4400	SHIELD CASE	1						
27	VMP4853	LENS CONNECTOR PLATE	1						
28	VEE9429	LENS CONNECTOR	1						
29	VGM1259	BOTTOM CASE	1						
30	VMG0843	BRAKER CAP	1						
31	VMP4896	BACK LOCK ANGLE	1						
32	VMT0788	SHOLDER PAD	1						
33	VGM1278	FRONT V EDGE	1						
34	VGM1277	FRONT FOOT BASE	1						
35	VKA0299	FRONT FOOT	2						
36	VMP4846	JACK P. C. B. ANGLE	1						
37	VGM1263	JACK PANEL	1						
38	VIX0531	CLATCH SPACER	1						
39	VHN0194	SPACER	1						
40	VEE9413	CONNECTOR	1						
41	VMP5193	BNC JACK	1						
43	VG04060	NET	1						
44	VMG0954	REAR FOOT	2						
45	VIX2806	SPACER	2						
46	VGFO362	BNC CAP	3						
71	XSB26+6	SCREW	3						
72	XSB3+8FZ	SCREW	14						
73	XSB3+10FZ	SCREW	4						
74	XSB4+6FC	SCREW	3						
75	XSB4+6FZ	SCREW	2						
76	XSN26+6FC	SCREW	2						
77	XSN26+6FZ	SCREW	7						
78	XSN26+6FZ	SCREW	4						
79	XSS2+4FZ	SCREW	2						
80	XSS3+8FZS	SCREW	4						
81	XTN2+4G	SCREW	1						
82	XTN2+6G	SCREW	2						
83	XTS26+6J	SCREW	6						
84	XSN3+8FZ	SCREW	2						
85	XYN2+6F	SCREW	2						
86	XYN26+8FZ	SCREW	2						
87	XYN3+0G	SCREW	2						
88	XYN3+6F	SCREW	2						
89	XSN2+6FZ	SCREW	6						
90	XSN26+4FC	SCREW	1						
91	XWE4FZ	WASHER	1						
92	XUC3FP	WASHER	1						
93	XUC12VM	E-RING	1						
94	XWA4BFZ	WASHER	1						

Components identified with the mark  have the special characteristics for safety. When replacing any of these components, use only the same type.

FRAME ASSEMBLY (1)

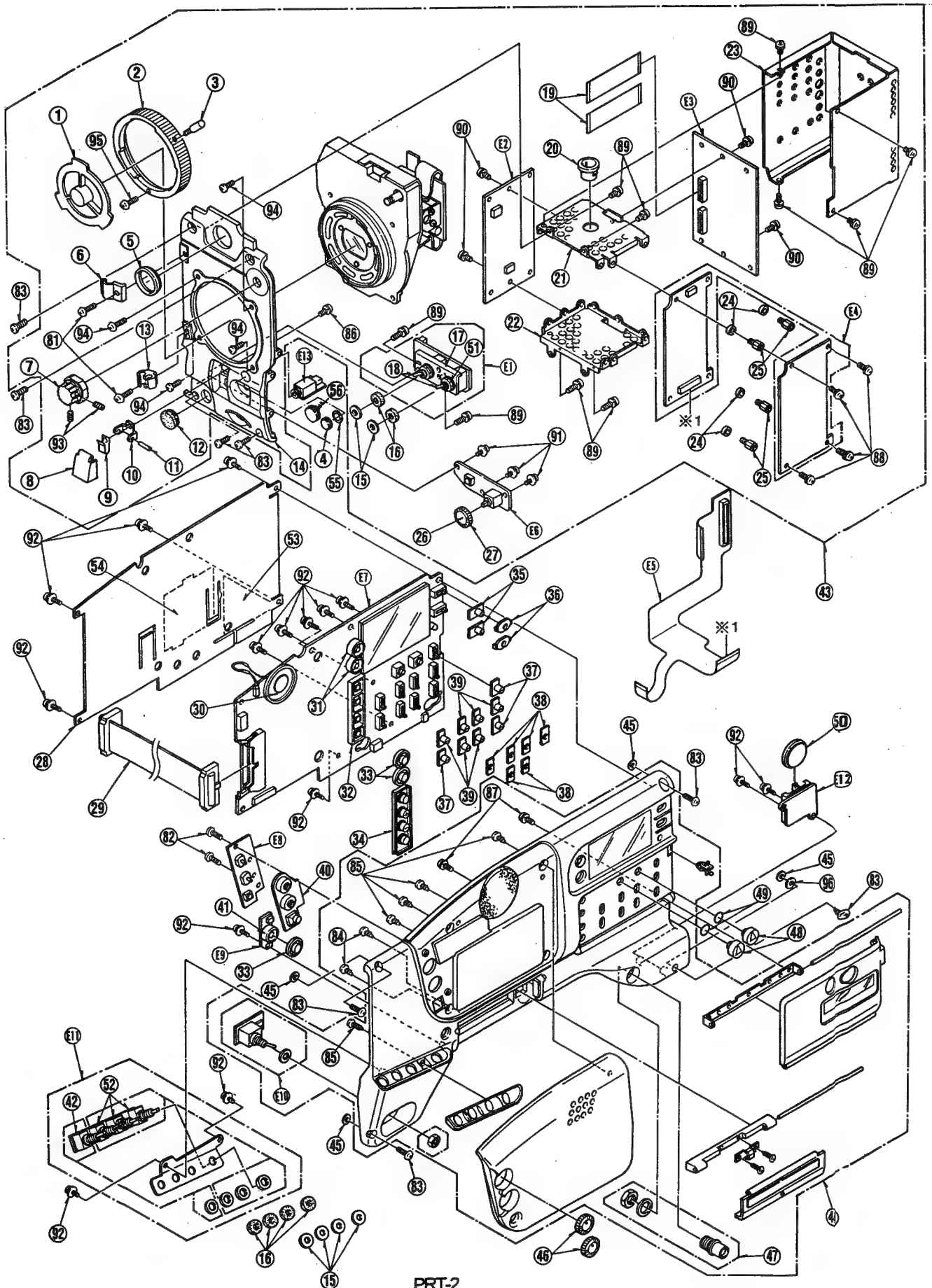


FRAME ASSEMBLY (2)

AJ-D800E

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	VKF2125	MOUNT CAP	1	
2	VDW0249	LENS MOUNT RING	1	
3	VHD0809	LENS MOUNT RING KNOB	1	
4	VHN0194	NUT	1	AJ-D800EN ONLY
5	VMG0948	EVF RUBBER SHIELD	1	
6	VJF0804	CABLE CLAMPER	1	
7	VGU7893	FILTER KNOB	1	
8	VKF2485	FRONT DOOR	1	
9	VMC1210	FRONT DOOR SPRING	1	
10	VMP4850	FRONT DOOR ANGLE	1	
11	VMS4088	FRONT DOOR ANGLE PIN	1	
12	VGU8714	RUBBER BUSH KNOB	1	
13	VJF1256	CABLE CLAMPER	1	
14	VGM1256	FRONT CASE	1	AJ-D800EN ONLY
14	VGM1453	FRONT CASE	1	AJ-D800E ONLY
15	VMG0646	WATERPROOF SW INSULATION SH	6	
16	VMT0738	SW INSULATION CUSHION	6	
17	VMP4839	SW HOLDER ANGLE	1	
18	VST0195	SWITCH	2	
19	VWJ18XW065T1	FLAT CABLE	2	
20	VJF1091	ONE TOUCH BUSHING	1	
21	VMP5415	OP LENS UPPER BRACKET	1	
22	VMP5416	OP LENS LOWER BRACKET	1	
23	VSC4656	SHIELD CASE	1	
24	VMD2527	P. C. B. SPACER	4	
25	VMD2534	P. C. B. SPACER PIN	4	
26	VGH3380	VR KNOB CAP A	1	
27	VGU5694	VR KNOB	1	
28	VNZ2498	LCD BARRIER	1	
29	VEE9427	FLAT CABLE	1	
30	EAS2P104N	SPEAKER	1	
31	VGQ3417	PUSH BUTTON HOLDER A	2	
32	VGQ3415	OPERATION BUTTON HOLDER	1	
33	VGU7081	OPERATION BUTTON	3	
34	VGU7153	OPERATION BUTTON B	1	
35	VGU7152	SLIDE SW COVER B	2	
36	VMG0947	SLIDE KNOB RUBBER	2	
37	VGU7262	SLIDE SW COVER C	3	
38	VGH3746	SLIDE SW SHEET	6	
39	VGU7151	SLIDE SW COVER A	6	
40	VMG0945	VR SHIELD RUBBER	1	
41	VGQ3417	PUSH BUTTON HOLDER A	1	
42	VST0299	SWITCH	1	
43	VEQ1990	HEAD OPTICAL ASS'Y	1	AJ-D800EN ONLY
43	VEQ2032	HEAD OPTICAL ASS'Y	1	AJ-D800E ONLY
44	VYP6632	SIDE CASE R1 U.	1	AJ-D800EN ONLY
44	VYP6666	SIDE CASE R1 U	1	AJ-D800E ONLY
45	VMD1558	NYLON WASHER	4	
46	VGU7077	VR KNOB A	2	
47	VEE9439	ECU CONNECTOR	1	
48	VGU7078	VR KNOB B	2	
49	VMG0862	O. RING	2	
50	CR2032	BATTERY	1	
51	VST0194	SWITCH	1	
52	VST0300	SWITCH	3	
53	VSC4478	50P CABLE SHIELD PLATE	1	
54	VNZ2599	RF INSULATION BARRIER	1	
55	VMD0531	WASHER	1	AJ-D800EN ONLY
56	VGFO851	SHIELD SHEET	1	AJ-D800E ONLY
81	XSB2+4FZ	SCREW	2	
82	XSB3+6FR	SCREW	2	
83	XSB3+10VZ	SCREW	4	
84	XTV28+6G	SCREW	2	
85	XTV3+8G	SCREW	5	
86	XYN2+C4	SCREW	1	
87	XYN28+K4	SCREW	2	
88	XYN3+C4	SCREW	4	
89	XYN3+C6	SCREW	10	
90	XYN3+E6FR	SCREW	4	
91	XYN3+K6	SCREW	3	
92	XYN3+K6RS	SCREW	15	

FRAME ASSEMBLY (2)

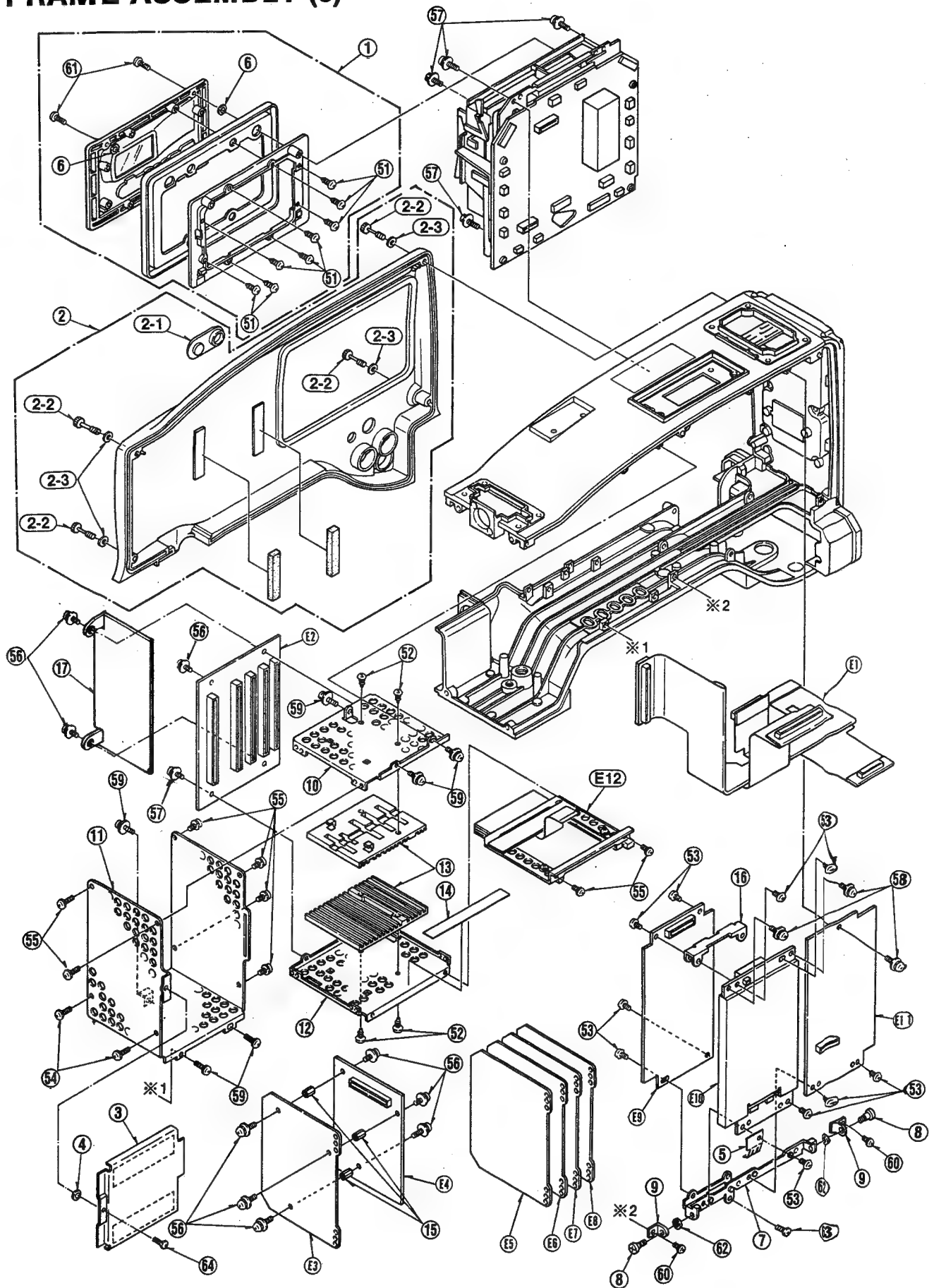


FRAME ASSEMBLY (3)

AJ-D800E

[illegible]

FRAME ASSEMBLY (3)

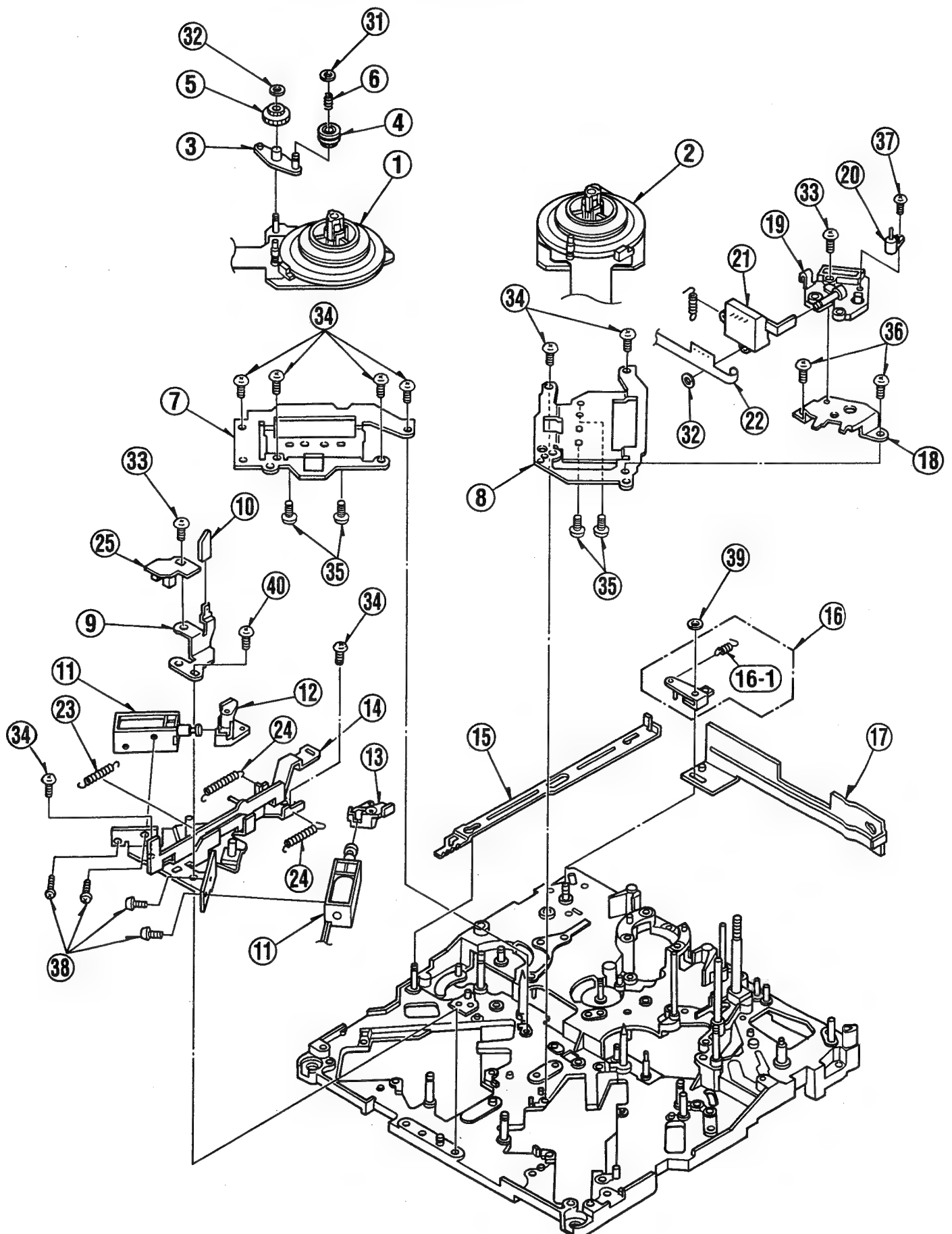


MECHANICAL CHASSIS ASSEMBLY (1)

AJ-D800E

[illegible]

MECHANICAL CHASSIS ASSEMBLY (1)




Components identified with the mark have the special characteristics for safety. When replacing any of these components, use only the same type.

MECHANICAL CHASSIS ASSEMBLY (2)

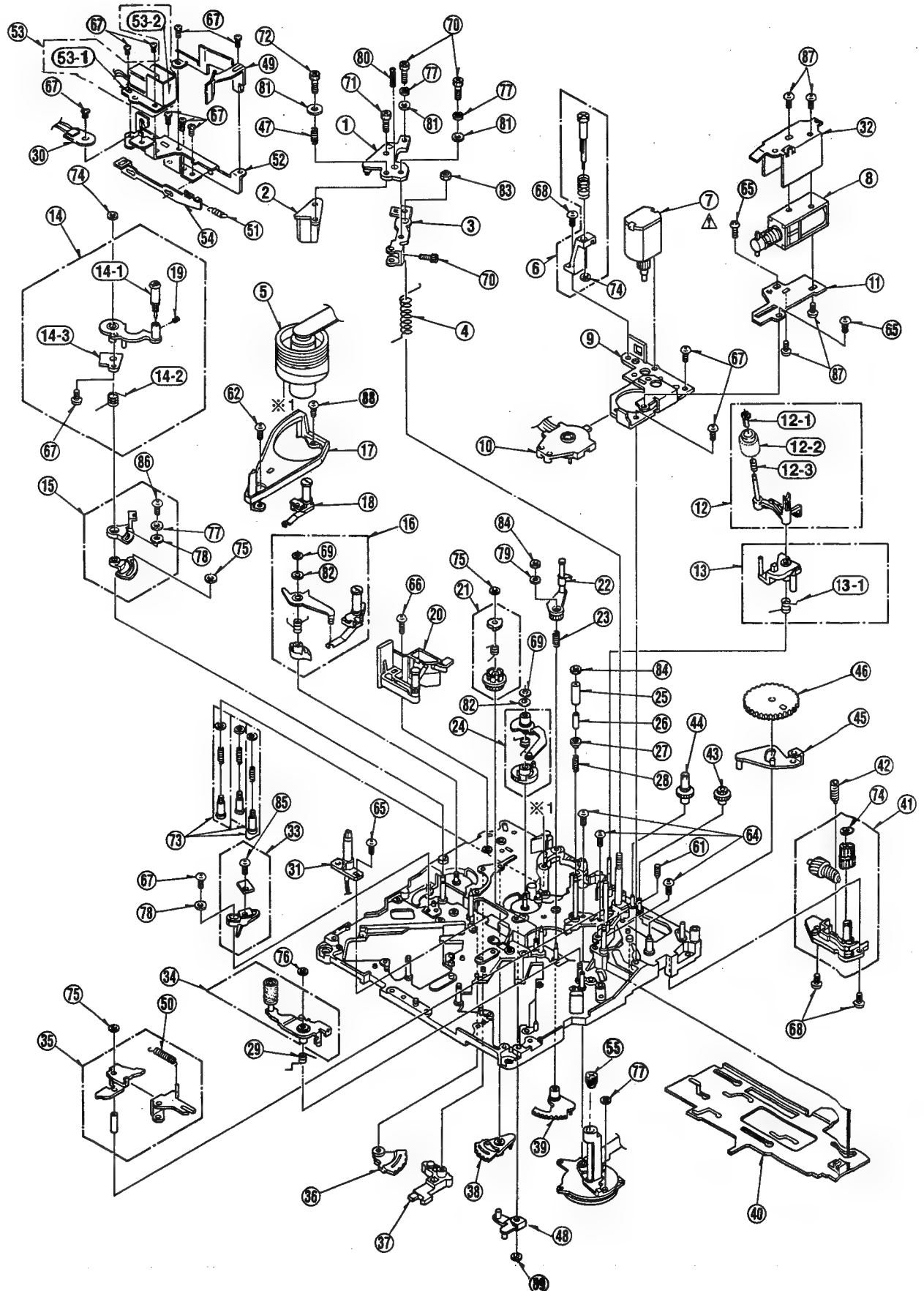
AJ-D800E

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VXA5554	A/C HEAD BASE (1) U	1	
2	VBR0301	A/C HEAD	1	
3	VXA5555	A/C HEAD BASE (2) U	1	
4	VMB2935	A/C HEAD HIGHT SPRING	1	
△ 5	VEG1337	CYLINDER UNIT	1	
6	VXA5715	EMERGENCY SHIFT HOLDER U	1	
△ 7	VEMO584	LOADING MOTOR (1) U	1	
8	VSJ0217	PINCH SOLENOID	1	
9	VXA5584	MOTOR ANGLE U.	1	
10	VES0814	MODE SW U	1	
11	VMA9376	PINCH SOLENOID BASE	1	
12	VXL2748	CLEANING ARM U.	1	
12-1	VMDX2150	CLEANER ROLLER HOLDER	1	
12-2	VXP1808	CLEANER ROLLER UNIT	1	
12-3	VMB3114	CLEANER ROLLER SPRING	1	
13	VXL2707	T2 ARM U.	1	
13-1	VMB2932	T2 ARM SPRING	1	
14	VXL2734	TENSION ARM A U.	1	
14-1	VXP1761	TENSION ROLLER	1	
14-2	VMB2931	TENSION LEG SPRING	1	
14-3	VXA5853	MAGNET HOLDER U.	1	
15	VXA5791	TENSION LEG SPRING HOOK U	1	
16	VXL2709	S1 LOADING ARM U	1	
17	VMD2533	LOADING RAIL	1	
18	VXA5852	T1 BOAT U A	1	
19	VHD0561	HEX SCREW	1	
20	VXA8052	S POST BASE AU.	1	
21	VXP1683	T4 CONNECTION GEAR U.	1	
22	VXL2772	T4 ARM U.	1	
23	VMB2950	T4 THRUST SPRING	1	
24	VXL2802	T LOADING ARM NU.	1	
25	VMS5906	T3 UPPER FRANGE	1	
26	VMS5905	T3 SLEEVE	1	
27	VMS5904	T3 LOWER FRANGE	1	
28	VMB2929	T3 SPRING	1	
29	VMB2933	PINCH RELEASE SPRING	1	
30	VEK7927	DEW SENSOR	1	
31	VEK7691	LED HOLDER U.	1	
32	VMA9411	PINCH SOLENOID ANGLE	1	
33	VXA5820	TENSION SENSOR U.	1	
34	VXL2684	PINCH ARM U.	1	
35	VXL2588	PINCH GUIDE ARM U	1	
36	VXA5570	T SECTOR GEAR U.	1	
37	VXL2582	TENSION LEG. GUIDE ARM U	1	
38	VXA5567	S SECTOR GEAR U.	1	
39	VXA5564	T4 SECTOR GEAR U.	1	
40	VXA5563	MAIN ROD U.	1	
41	VXA5627	THRUST SHIFT HOLDER U.	1	
42	VDG1166	MOTOR WARM GEAR	1	
43	VDG1268	MOTOR EMERGENCY GEAR A	1	
44	VDG1267	MOTOR EMERGENCY GEAR B	1	
45	VXL2591	MAIN CAM ARM U	1	
46	VDG1168	MAIN CAM GEAR	1	
47	VMB2937	A/C HEAD ADJUST SPRING	1	
48	VXL2600	EJECT ARM U	1	
49	VXA5770	T1 GUIDE U.	1	
50	VMB2934	SPRING	1	
51	VMB3051	CLEANER RETURN SPRING	1	
52	VXA5768	CLEANER BASE 1 U.	1	
53	VXA5769	CLEANER SOLENOID U.	1	
53-1	VSJ0222	CLEANER SOLENOID	1	
53-2	VMA9521	CLEANER SOLENOID BASE	1	
54	VMM0415	CLEANER INSULATTION	1	
61	VHD0356	SCREW	1	
62	XQN2+A3	SCREW	1	
64	XQN2+A3SFZ	SCREW	3	
65	XQN2+AM2	SCREW	3	
66	XQN2+AM4	SCREW	1	
67	XQN2+CF3	SCREW	12	
68	XQN2+CF4	SCREW	3	
69	XUG12FP	E-RING	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
70	XVE2B4FZ	HEX SCREW	3	
71	XVE2B6FP	HEX SCREW	1	
72	XVE2B12FP	HEX SCREW	1	
73	VXQ0439	SCREW	3	
74	VMDX0967	CUT WASHER	3	
75	VMDX1061	WASHER	3	
76	VMDX1079	CUT WASHER	1	
77	XWA2B	WASHER	4	
78	XWE2	WASHER	2	
79	XWE16VW	WASHER	1	
80	XXE2A6FP	HEX SCREW	1	
81	XWG2	WASHER	3	
82	XWGV15Z32G	WASHER	2	
83	VHD0045	NYLON NUT	1	
84	VHN0312	NUT	2	
85	XQN2+AQ3. 5FZ	SCREW	1	
86	XQN2+AJ5	SCREW	1	
87	XQN2+A15	SCREW	4	
88	XQN2+A4	SCREW	1	
89	VMDX1394	CUT WASHER	1	
*	VXY1229	MECHANISM UNIT	1	

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MECHANICAL CHASSIS ASSEMBLY (2)

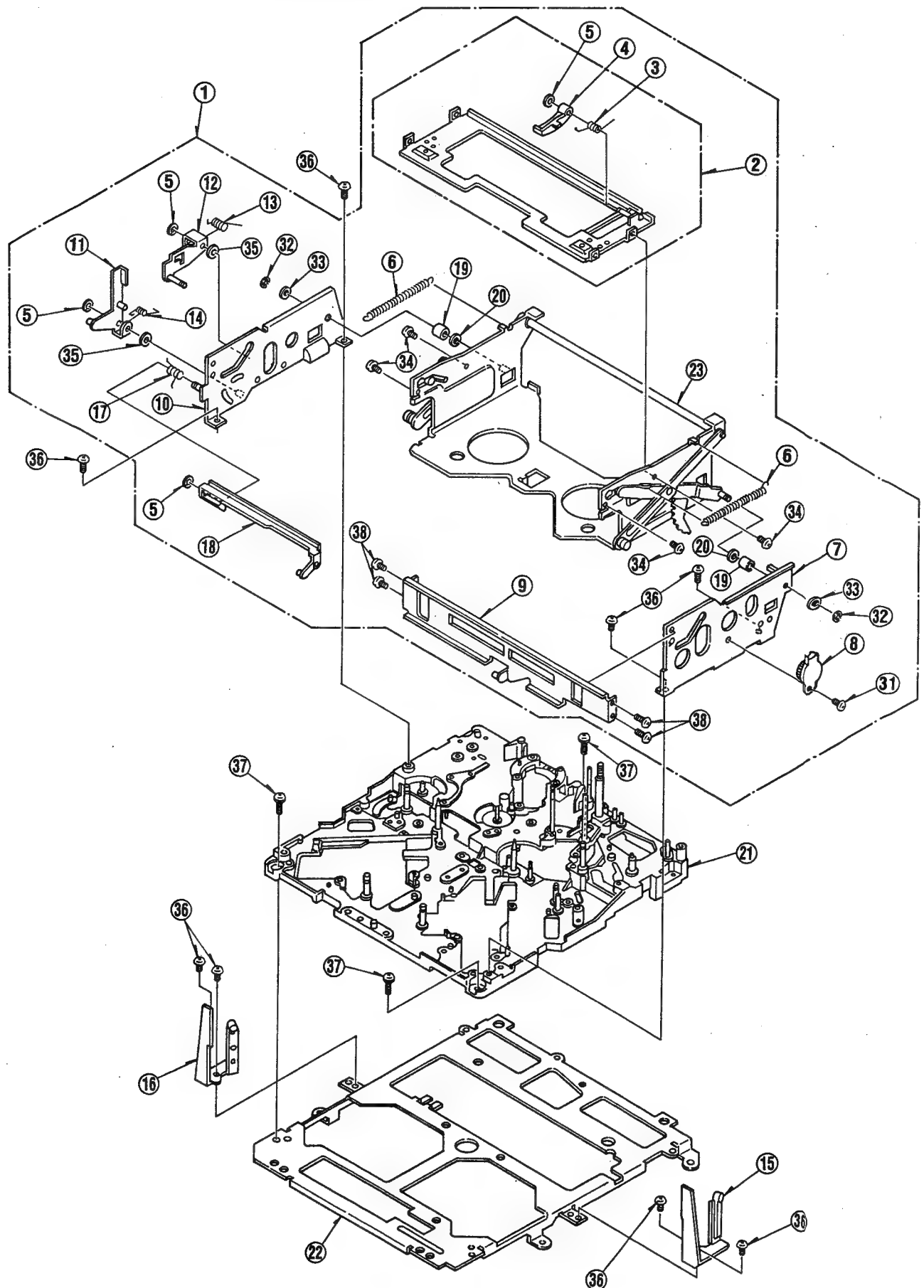



CASSETTE COMPARTMENT ASSEMBLY

AJ-D800E

[illegible]

CASSETTE COMPARTMENT ASSEMBLY




Components identified with the mark  have the special characteristics for safety. When replacing any of these components, use only the same type.

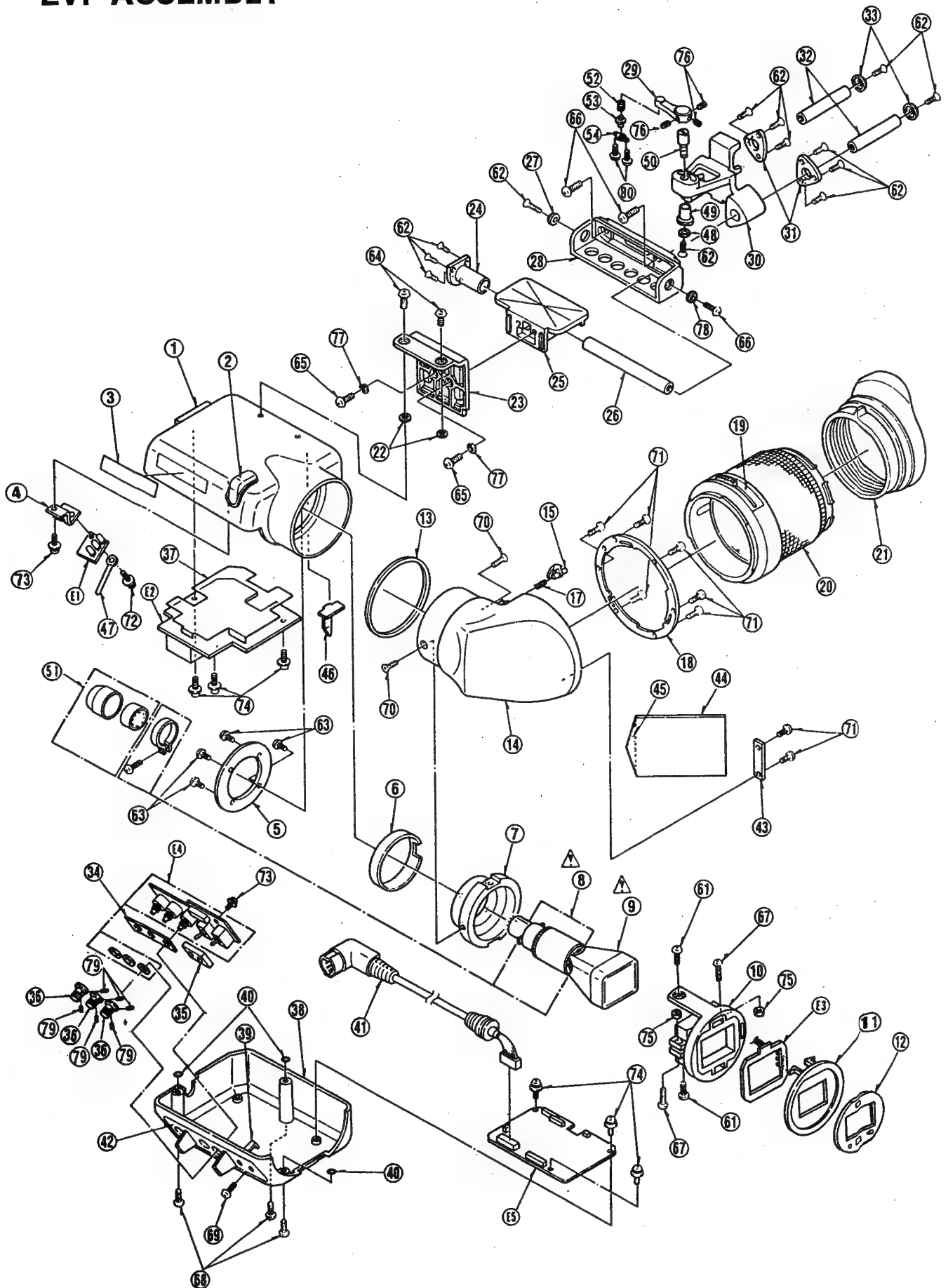
EVF ASSEMBLY

AJ-D800E

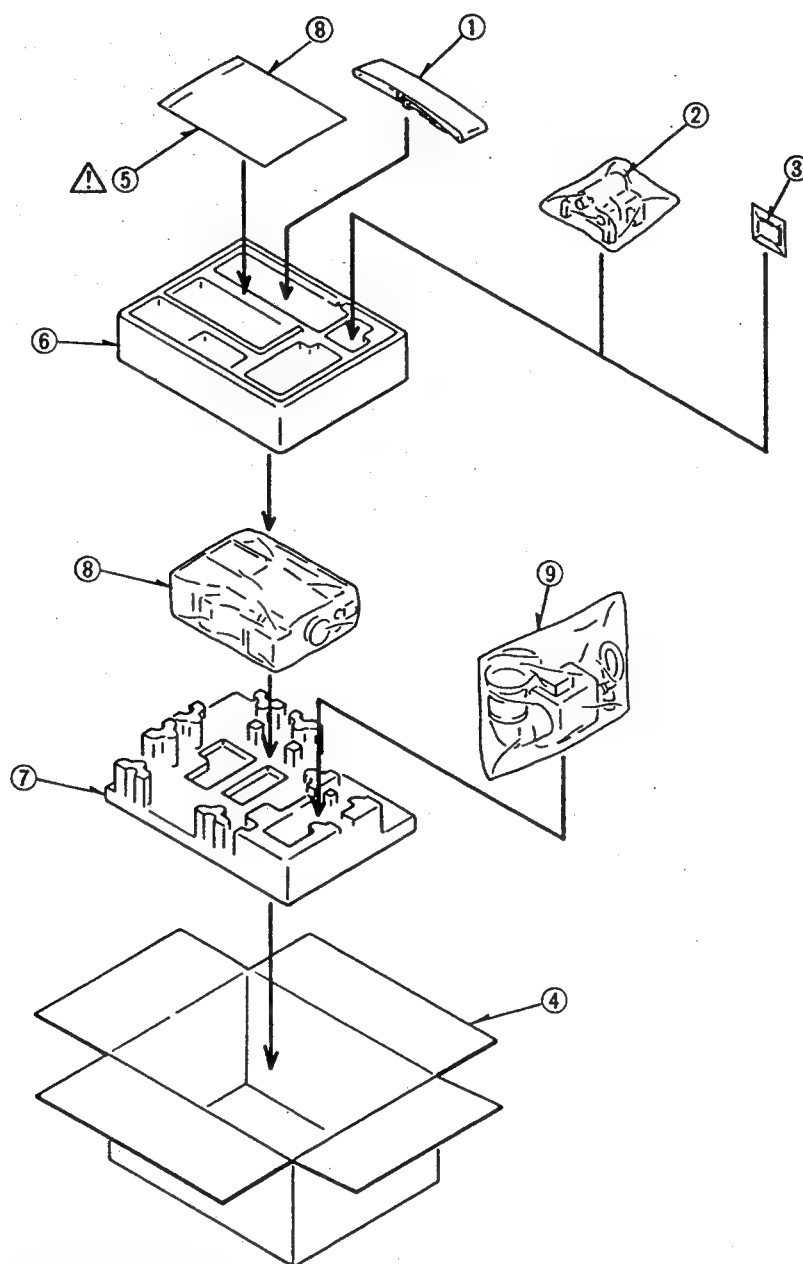
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VGM1297	UPPER BODY	1		79	XXEV16D2FP	SCREW	6	
2	VGL0723	UPPER TALLY	1		80	XQN2+A3FZ	SCREW	2	
3	VGB0437	PANASONIC BADGE	1						
4	VMP4945	HOLDER PLATE	1						
5	VMX2536	END CAP	1		E1	VEP29021A	P. C. BOARD W/COMPONENT	1	
6	VMX2537	PIPE SPACER	1		E2	VEP29019A	H-DEF C. B. A.	1	
7	VDB1421	SLIP RING	1		E3	VEP29023A	CRT MASK C. B. A.	1	
 8	ELY15V114G	DEFLECTION YOKE	1		E4	VEP29020A	VR SW C. B. A.	1	
 9	MO4KYS07WB	CRT	1		E5	VEP29022A	VIDEO C. B. A.	1	
10	VGP4348	ESCUTCHEON (A)	1		*	VEQ1906	EVF		
11	VGP4349	ESCUTCHEON (B)	1						
12	VGH3884	CRT NAME PLATE	1						
13	VMX2552	RING	1						
14	VGP4205	CRT CASE	1						
15	VXU1443	RELEASE KNOB U	1						
17	VMB3026	RELEASE SPRING	1						
18	VGP4206	MOUNT RING	1						
19	VGL8238	WIDTH ADJUST LABEL	1						
20	VYC0786	EYE PIECE U	1						
21	VMG0799	RUBBER CAP	1						
22	VMD1558	NYLON WASHER	2						
23	VGM1267	INSULATION TABLE	1						
24	VDB1393	BUSHING	1						
25	VGM1266	INSULATION TABLE	1						
26	VMS5862	SHAFT B	1						
27	VQG3989	SHAFT STOPPER	1						
28	VGM1265	PLATE B	1						
29	VGU7076	EVF LOCK LEVER	1						
30	VGM1264	PLATE A	1						
31	VDB1392	BUSHING A	2						
32	VMS5861	SHAFT A	2						
33	VQG3989	SHAFT STOPPER	2						
34	VMG0870	SW SPACER	1						
35	VMG0875	SW SHIELD RUBBER	1						
36	VGU7352	VR KNOB	3						
37	VWZ2577	INSULATION PLATE	1						
38	VGM1309	LOWER BODY	1						
39	VMP4946	SW MOUNT PLATE	1						
40	VMG0981	RING	3						
41	VJA0838	INPUT CABLE	1						
42	VGH3813	FRONT NAME PLATE	1						
43	VGO4165	HALF MIRROR HOLDER	1						
44	VDL0417	MIRROR	1						
45	VGFO653	NON REFLECTION SHEET	1						
46	VJF0847	CORD KEEPER	1						
47	VJF1034	CLAMPER	1						
48	VQG3993	LOCK RING	1						
49	VHD0991	INSERT SCREW	1						
50	VHD0990	LOCK SCREW	1						
51	VEE9446	CRT SOCKET	1						
52	VMB3027	SPRING	1						
53	VGO4181	LOCK SOCKET	1						
54	VMP5089	COVER	1						
61	XQN26+A4	SCREW	2						
62	XQS2+A6FZ	SCREW	12						
63	XSB26+6	SCREW	4						
64	XSB3+6FZ	SCREW	2						
65	XSB3+8FZ	SCREW	2						
66	XSB4+8FZS	SCREW	3						
67	XSB2+12	SCREW	2						
68	XSN26+10FZ	SCREW	3						
69	XSS2+4FZ	SCREW	1						
70	XSS26+6FZ	SCREW	2						
71	XTN2+5GFZ	SCREW	8						
72	XYN2+F6	SCREW	1						
73	XYN2+K4	SCREW	2						
74	XYN26+K5	SCREW	6						
75	XN02B	NUT	2						
76	XXEV3W3FP	SCREW	3						
77	XWA3BFZ	WASHER	2						
78	XWA4BFZ	WASHER	1						

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EVF ASSEMBLY



PACKING PARTS ASSEMBLY



PACKING PARTS ASSEMBLY

AJ-D800E

[illegible]

ELECTRICAL REPLACEMENT PARTS LIST

AJ-D800E

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VEP25016C	CDS P. C. BOARD	1	(RTL)
■ E2	VEP20736A	PULSE P. C. BOARD	1	(RTL)
■ E3	VEP23278B	PRE PROCESS P. C. BOARD	1	(RTL)
■ E4	VEP20735	CCD ANGLE P. C. BOARD	1	(RTL)
■ E5	VEPOOW29A	FLEXIBLE P. C. BOARD	1	(RTL)
■ E6	VEPOOY28A	MOTHER P. C. BOARD	1	(RTL)
■ E7	VEP26074D	CAMERA SYSCON P. C. BOARD	1	(RTL)
■ E8	VEP23275A	CAMERA DSP P. C. BOARD	1	(RTL)
■ E9	VEP23276B	CAMERA ENCODER P. C. BOARD	1	(RTL)
■ E10	VEP23446B	CAMERA SYNC P. C. BOARD	1	(RTL) INCLUDING E11
■ E11	VEP20747A	CAMERA SYNC SUB P. C. BOARD	1	(RTL) INCLUDED E10
■ E12	VEPO3D53A	VIDEO IF P. C. BOARD	1	(RTL)
■ E13	VEPO3D84A	VIDEO I/F SUB P. C. BOARD	1	(RTL)
■ E14	VEPO6A22C	VTR SYSCON P. C. BOARD	1	(RTL)
■ E15	VEPO2437B	SERVO P. C. BOARD	1	(RTL)
■ E16	VEPO3B95A	RF P. C. BOARD	1	(RTL)
■ E17	VEPO3B96B	VIDEO MAIN P. C. BOARD	1	(RTL)
■ E18	VEPO1643A	POWER P. C. BOARD	1	(RTL)
■ E19	VEPO4522B	AUDIO LCD P. C. BOARD	1	(RTL) AJ-D800E ONLY
■ E19	VEPO4690A	AUDIO LCD P. C. BOARD	1	(RTL) AJ-D800E ONLY
■ E20	VEPO1786A	REAR JACK P. C. BOARD	1	(RTL)
■ E21	VEP80980A	VTR FLEXIBLE P. C. BOARD	1	(RTL)
■ E22	VEPOOW03A	POWER SW P. C. BOARD	1	(RTL)
■ E23	VEPOOW04A	TOGGLE SW P. C. BOARD	1	(RTL)
■ E24	VEPOOW05A	MODE CHECK P. C. BOARD	1	(RTL)
■ E25	VEPOOW07A	ALARM/MONITOR P. C. BOARD	1	(RTL)
■ E26	VEP80961B	BACKUP BATTERY P. C. BOARD	1	(RTL)
■ E27	VEPOOW08B	HEAD PHONE P. C. BOARD	1	(RTL)
■ E28	VEPOOX87A	DC INPUT P. C. BOARD	1	(RTL)
■ E29	VEP20537A	FRONT TOGGLE P. C. BOARD	1	(RTL)
■ E30	VEP20538A	FRONT P. C. BOARD	1	(RTL)
■ E31	VEP86149A	OPERATE P. C. BOARD	1	(RTL)
■ E32	VEP80858A	BACK TALLY LED P. C. BOARD	1	(RTL)
■ E33	VEP80A14A	FRONT MIC P. C. BOARD	1	(RTL)
■ E34	VEP80A13A	BNC P. C. BOARD	1	(RTL)
■ E35	VEP86252A	MEMORY CARD P. C. BOARD	1	(RTL)
■ E36	VEP29019	HDEF P. C. BOARD	1	(RTL)
■ E37	VEP29022A	VIDEO P. C. BOARD	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E38	VEP29020A	VDEF P. C. BOARD	1	(RTL)
■ E39	VEP29021A	F TALLY P. C. BOARD		
■ E40	VEP29023A	EYE PIECE P. C. BOARD		
■ E1	VEP25016C	CDS P. C. BOARD	1	(RTL)
C3004	ECST1ED226Z	T. CAPACITOR CH 25V 22U	1	
C3005	ECST1CX106Z	T. CAPACITOR CH 16V 10U	1	
C3006	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	1	
C3007	ECST1ED226Z	T. CAPACITOR CH 25V 22U	1	
C3101	ECST1CX106Z	T. CAPACITOR CH 16V 10U	1	
C3102	ECST1EC106Z	T. CAPACITOR CH 25V 10U	1	
C3103, 04	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	2	
C3105	ECST1ED226Z	T. CAPACITOR CH 25V 22U	1	
C3106, 07	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	2	
C3108	ECST1EC106Z	T. CAPACITOR CH 25V 10U	1	
C3109	ECUX1H1000CV	C. CAPACITOR CH 50V 10P	1	
C3111	ECST1CX106Z	T. CAPACITOR CH 16V 10U	1	
C3112	ECST1ED226Z	T. CAPACITOR CH 25V 22U	1	
C3114	ECUX1H030CCV	C. CAPACITOR CH 50V 3P	1	
C3116	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
C3201	ECST1CX106Z	T. CAPACITOR CH 16V 10U	1	
C3202	ECST1EC106Z	T. CAPACITOR CH 25V 10U	1	
C3203, 04	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	2	
C3205	ECST1ED226Z	T. CAPACITOR CH 25V 22U	1	
C3206, 07	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	2	
C3208	ECST1EC106Z	T. CAPACITOR CH 25V 10U	1	
C3209	ECUX1H1000CV	C. CAPACITOR CH 50V 10P	1	
C3211	ECST1CX106Z	T. CAPACITOR CH 16V 10U	1	
C3212	ECST1ED226Z	T. CAPACITOR CH 25V 22U	1	
C3214	ECUX1H030CCV	C. CAPACITOR CH 50V 3P	1	
C3216	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
C3301	ECST1CX106Z	T. CAPACITOR CH 16V 10U	1	
C3302	ECST1EC106Z	T. CAPACITOR CH 25V 10U	1	
C3303, 04	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	2	
C3305	ECST1ED226Z	T. CAPACITOR CH 25V 22U	1	
C3306, 07	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	2	
C3308	ECST1EC106Z	T. CAPACITOR CH 25V 10U	1	
C3309	ECUX1H1000CV	C. CAPACITOR CH 50V 10P	1	
C3311	ECST1CX106Z	T. CAPACITOR CH 16V 10U	1	
C3312	ECST1ED226Z	T. CAPACITOR CH 25V 22U	1	
C3314	ECUX1H030CCV	C. CAPACITOR CH 50V 3P	1	
C3316	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
D3001	MA3047-M	DIODE	1	
D3102	MA151K	DIODE	1	
D3202	MA151K	DIODE	1	
D3302	MA151K	DIODE	1	
IC3001	NJM431U	IC	1	
IC3002	NJM2904M	IC	1	
P3001	VJP3125B006	CONNECTOR (MALE) 8P	1	
P3002	VJP3550B014	CONNECTOR (MALE)	1	
P3003	VJP3125B006	CONNECTOR (MALE) 8P	1	
Q3001	2SB956-R	TRANSISTOR	1	
Q3101	2SA1022-B	TRANSISTOR	1	
Q3102	3SK157J15	TRANSISTOR	1	
Q3103	2SC2295-B	TRANSISTOR	1	
Q3104	2SA1022-B	TRANSISTOR	1	
Q3105	3SK157J15	TRANSISTOR	1	
Q3106	2SC2295-B	TRANSISTOR	1	
Q3107	2SA1022-B	TRANSISTOR	1	
Q3108	3SK157J15	TRANSISTOR	1	
Q3109	2SC2295-B	TRANSISTOR	1	
Q3110	2SA1022-B	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q3111	3SK157J15	TRANSISTOR	1		R3118	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3112	2SC2295-B	TRANSISTOR	1		R3119	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
Q3113	2SA1022-B	TRANSISTOR	1		R3120	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3114	3SK157J15	TRANSISTOR	1		R3121	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3115-19	2SC2295-B	TRANSISTOR	5		R3124	VRE0071E301	M. RESISTOR CH 1/16W 300	1	
Q3120	2SD601A-R	TRANSISTOR	1		R3125	VRE0071E182	M. RESISTOR CH 1/16W 1.8K	1	
Q3121, 22	2SA1226	TRANSISTOR	2		R3126	VRE0071E301	M. RESISTOR CH 1/16W 300	1	
Q3123	2SB710A-R	TRANSISTOR	1		R3127	VRE0071E182	M. RESISTOR CH 1/16W 1.8K	1	
Q3201	2SA1022-B	TRANSISTOR	1		R3128	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1	
Q3202	3SK157J15	TRANSISTOR	1		R3129-31	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	3	
Q3203	2SC2295-B	TRANSISTOR	1		R3132, 33	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
Q3204	2SA1022-B	TRANSISTOR	1		R3134	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
Q3205	3SK157J15	TRANSISTOR	1		R3136	VRE0071E163	M. RESISTOR CH 1/16W 16K	1	
Q3206	2SC2295-B	TRANSISTOR	1		R3137	VRE0071E561	M. RESISTOR CH 1/16W 560	1	
Q3207	2SA1022-B	TRANSISTOR	1		R3139	VRE0071E272	M. RESISTOR CH 1/16W 2.7K	1	
Q3208	3SK157J15	TRANSISTOR	1		R3140	VRE0071E822	M. RESISTOR CH 1/16W 8.2K	1	
Q3209	2SC2295-B	TRANSISTOR	1		R3141, 42	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
Q3210	2SA1022-B	TRANSISTOR	1		R3143	VRE0071E242	M. RESISTOR CH 1/16W 2.4K	1	
Q3211	3SK157J15	TRANSISTOR	1		R3144, 45	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
Q3212	2SC2295-B	TRANSISTOR	1		R3146	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1	
Q3213	2SA1022-B	TRANSISTOR	1		R3147	VRE0071E392	M. RESISTOR CH 1/16W 3.9K	1	
Q3214	3SK157J15	TRANSISTOR	1		R3201	VRE0071E303	M. RESISTOR CH 1/16W 30K	1	
Q3215-19	2SC2295-B	TRANSISTOR	5		R3202	VRE0071E273	M. RESISTOR CH 1/16W 27K	1	
Q3220	2SD601A-R	TRANSISTOR	1		R3203	VRE0071E221	M. RESISTOR CH 1/16W 220	1	
Q3221, 22	2SA1226	TRANSISTOR	2		R3204	VRE0071E272	M. RESISTOR CH 1/16W 2.7K	1	
Q3301	2SA1022-B	TRANSISTOR	1		R3205	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3302	3SK157J15	TRANSISTOR	1		R3206	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
Q3303	2SC2295-B	TRANSISTOR	1		R3207	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3304	2SA1022-B	TRANSISTOR	1		R3208	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
Q3305	3SK157J15	TRANSISTOR	1		R3209	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3306	2SC2295-B	TRANSISTOR	1		R3210	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3307	2SA1022-B	TRANSISTOR	1		R3211	VRE0071E221	M. RESISTOR CH 1/16W 220	1	
Q3308	3SK157J15	TRANSISTOR	1		R3212	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
Q3309	2SC2295-B	TRANSISTOR	1		R3213	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3310	2SA1022-B	TRANSISTOR	1		R3214	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3311	3SK157J15	TRANSISTOR	1		R3215	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
Q3312	2SC2295-B	TRANSISTOR	1		R3216	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3313	2SA1022-B	TRANSISTOR	1		R3217	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
Q3314	3SK157J15	TRANSISTOR	1		R3218	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3315-19	2SC2295-B	TRANSISTOR	5		R3219	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
Q3321, 22	2SA1226	TRANSISTOR	2		R3220	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3323	2SD601A-R	TRANSISTOR	1		R3221	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3324					R3224	VRE0071E301	M. RESISTOR CH 1/16W 300	1	
Q3325					R3225	VRE0071E182	M. RESISTOR CH 1/16W 1.8K	1	
Q3326					R3226	VRE0071E301	M. RESISTOR CH 1/16W 300	1	
Q3327					R3227	VRE0071E182	M. RESISTOR CH 1/16W 1.8K	1	
Q3328					R3228	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1	
Q3329-31					R3229-31	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	3	
Q3332, 33					R3232, 33	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
Q3334					R3234	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
Q3339					R3239	VRE0071E392	M. RESISTOR CH 1/16W 3.9K	1	
Q3241, 42					R3241, 42	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
Q3243					R3243	VRE0071E242	M. RESISTOR CH 1/16W 2.4K	1	
Q3244, 45					R3244, 45	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
Q3246					R3246	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1	
Q3247					R3247	VRE0071E392	M. RESISTOR CH 1/16W 3.9K	1	
Q3301					R3301	VRE0071E303	M. RESISTOR CH 1/16W 30K	1	
Q3302					R3302	VRE0071E273	M. RESISTOR CH 1/16W 27K	1	
Q3303					R3303	VRE0071E221	M. RESISTOR CH 1/16W 220	1	
Q3304					R3304	VRE0071E272	M. RESISTOR CH 1/16W 2.7K	1	
Q3305					R3305	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3306					R3306	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
Q3307					R3307	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3308					R3308	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
Q3309					R3309	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3310					R3310	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3311					R3311	VRE0071E221	M. RESISTOR CH 1/16W 220	1	
Q3312					R3312	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
Q3313					R3313	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3314					R3314	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3315					R3315	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
Q3316					R3316	VRE0071E220	M. RESISTOR CH 1/16W 22	1	
Q3317					R3317	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
Q3318					R3318	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
Q3319					R3319	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3320	VRE0071E220	M. RESISTOR CH 1/16W 22	1		G70, 71	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	2	
R3321	VRE0071E153	M. RESISTOR CH 1/16W 15K	1		G72	ECEV1EV330Q	E. CAPACITOR CH 25V 33U	1	
R3324	VRE0071E181	M. RESISTOR CH 1/16W 180	1		G73	ECEVOJV330Q	E. CAPACITOR CH 6.3V 33U	1	
R3325	VRE0071E182	M. RESISTOR CH 1/16W 1.8K	1		G77	ECEVOJV330Q	E. CAPACITOR CH 6.3V 33U	1	
R3326	VRE0071E181	M. RESISTOR CH 1/16W 180	1		G101	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1	
R3327	VRE0071E182	M. RESISTOR CH 1/16W 1.8K	1		G102	ECST1CY105Z	T. CAPACITOR CH 16V 1U	1	
R3328	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1		G103	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
R3329	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1		G104	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1	
R3330, 31	VRE0071E682	M. RESISTOR CH 1/16W 6.8K	2		G105	ECEV1EV330Q	E. CAPACITOR CH 25V 33U	1	
R3332, 33	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2		G106	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
R3334	VRE0071E751	M. RESISTOR CH 1/16W 750	1		G107	ECEV1EV330Q	E. CAPACITOR CH 25V 33U	1	
R3339	VRE0071E102	M. RESISTOR CH 1/16W 1K	1		C522	ECA1VFQ270	E. CAPACITOR 35V 27U	1	
R3341, 42	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2		C523-26	VCK0134K104	C. CAPACITOR 0.1U	4	
R3343	VRE0071E242	M. RESISTOR CH 1/16W 2.4K	1						
R3344, 45	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2		D4	MA3068-M	DIODE	1	
R3346	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1		D5	MA3047-M	DIODE	1	
R3347	VRE0071E392	M. RESISTOR CH 1/16W 3.9K	1		D6	MA152K	DIODE	1	
					D7	MA153	DIODE	1	
TG3001, 02	EYF6CU	TEST POINT	2		D8	MA152K	DIODE	1	
					D10	MA3047-M	DIODE	1	
TP3001-05	EYF6CU	TEST POINT	5		D11	MA3068-M	DIODE	1	
TP3101-03	EYF6CU	TEST POINT	3						
TP3201-03	EYF6CU	TEST POINT	3		IC1	MN53003XCU	IC	1	
TP3301-03	EYF6CU	TEST POINT	3		IC2	MN53020XXG1	ASIC	1	
					IC3	MC74HC244AF	IC	1	
VC3101	VCV0048	TRIMMER	1		IC5	MC74HC244AF	IC	1	
VC3201	VCV0048	TRIMMER	1		IC6	MC74HC4538AF	IC	1	
VC3301	VCV0048	TRIMMER	1		IC7	MC74HC08AF	IC	1	
					IC8	MC74HC00AF	IC	1	
VR3101	VRV0113B502	V. RESISTOR 5K	1		IC9	MC74HC08AF	IC	1	
VR3102	VRV0113B203	V. RESISTOR 20K	1		IC10	MC74HC04AF	IC	1	
VR3201	VRV0113B502	V. RESISTOR 5K	1		IC13	NJM431U	IC	1	
VR3202	VRV0113B203	V. RESISTOR 20K	1		IC14	NJM2904M	IC	1	
VR3301	VRV0113B502	V. RESISTOR 5K	1		IC15	NJM431U	IC	1	
VR3302	VRV0113B203	V. RESISTOR 20K	1		IC16	NJM2904M	IC	1	
					IC20	NJM2904M	IC	1	
					IC21	NJM431U	IC	1	
					IC22	NJM2904M	IC	1	
E2	VEP20736A	PULSE P.C. BOARD	1 (RTL)						
					L1	VLP0352	COIL	1	
G1	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	1						
G3	ECST1CD336Z	T. CAPACITOR CH 16V 33U	1		P1	VJS2907D025	CONNECTOR (FEMALE)	1	
G4	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		P2, P3	VJS3422B018	CONNECTOR (FEMALE)	2	
G5	ECUX1H180JCV	C. CAPACITOR CH 50V 18P	1		P4	VJS3550A014	CONNECTOR (FEMALE)	1	
G6	ECUX1H680JCV	C. CAPACITOR CH 50V 68P	1						
G9	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1		Q3, Q4	2SB956-R	TRANSISTOR	2	
G10	ECUX1H680JCV	C. CAPACITOR CH 50V 68P	1		Q5	2SD1280-R	TRANSISTOR	1	
G15	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		Q6	2SB709A-R	TRANSISTOR	1	
G16	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	1		Q7	2SD601A-R	TRANSISTOR	1	
G17	ECUX1H680JCV	C. CAPACITOR CH 50V 68P	1		Q8	2SB709A-R	TRANSISTOR	1	
G18	ECU1H333JB	P. CAPACITOR 50V 0.033U	1		Q10	2SD1280-R	TRANSISTOR	1	
G19	ECEVOJV470Q	E. CAPACITOR CH 6.3V 47U	1		Q11, 12	2SC3734B24	TRANSISTOR	2	
G20	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		Q13	2SB709A-R	TRANSISTOR	1	
G21	ECEV1EV330Q	E. CAPACITOR CH 25V 33U	1		Q14	2SD601A-R	TRANSISTOR	1	
G22-27	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	6		Q15, 16	2SC3735B35	TRANSISTOR	2	
G28, 29	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2		Q17-19	2SD601A-R	TRANSISTOR	3	
G34	ECST1CY105Z	T. CAPACITOR CH 16V 1U	1		Q22, 23	2SB956-R	TRANSISTOR	2	
G35	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1						
G36	VCEA1AAP680	E. CAPACITOR 10V 68U	1		R1-R9	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	9	
G37	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		R12	VRE0071E561	M. RESISTOR CH 1/16W 560	1	
G38	ECA1EFQ181	E. CAPACITOR 25V 180U	1		R13	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
G39	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		R16, 17	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
G40	ECA1CFQ121	E. CAPACITOR 16V 120U	1		R20-22	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
G41	ECST1EX335Z	T. CAPACITOR CH 25V 3.3U	1		R24	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
G43	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1		R27-29	VRE0071E330	M. RESISTOR CH 1/16W 33K	3	
G45	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1		R30-32	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
G46	ECEV1HV2R20	E. CAPACITOR CH 50V 2.2U	1		R38-40	VRE0071E102	M. RESISTOR CH 1/16W 1K	3	
G48	ECA1EFQ220	E. CAPACITOR 25V 22U	1		R42	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
G50	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		R43, 44	VRE0071E103	M. RESISTOR CH 1/16W 10K	2	
G52, 53	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2		R45, 46	VRE0071E391	M. RESISTOR CH 1/16W 390	2	
G55-57	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3		R47	VRE0071E562	M. RESISTOR CH 1/16W 5.6K	1	
G58, 59	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	2		R48	VRE0071E123	M. RESISTOR CH 1/16W 12K	1	
G60	ECUX1H821JV	C. CAPACITOR CH 50V 820P	1		R49	VRE0071E473	M. RESISTOR CH 1/16W 47K	1	
G61	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		R50	VRE0071E562	M. RESISTOR CH 1/16W 5.6K	1	
G62	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		R51	VRE0071E123	M. RESISTOR CH 1/16W 12K	1	

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Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C3401	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C3402	ECUX1H100DCV	C. CAPACITOR CH 50V 10P	1	
C3403	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3404, 05	ECST1CY225Z	T. CAPACITOR CH 16V 2.2U	2	
C3406, 07	ECST1AY106Z	T. CAPACITOR CH 10V 10U	2	
C3408, 09	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3410	ECST1CX156Z	T. CAPACITOR CH 16V 15U	1	
C3412	ECST1CX156Z	T. CAPACITOR CH 16V 15U	1	
C3414	ECUX1H100DCV	C. CAPACITOR CH 50V 10P	1	
C3415	ECUX1H500JCV	C. CAPACITOR CH 50V 56P	1	
C3416, 17	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3418	ECUX1H0500CV	C. CAPACITOR CH 50V 5P	1	
C3419-22	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4	
C3423	ECUX1H0400CV	C. CAPACITOR CH 50V 4P	1	
C3425	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3426, 27	ECST1CY225Z	T. CAPACITOR CH 16V 2.2U	2	
C3428	ECEV1CN100Q	E. CAPACITOR CH 16V 10U	1	
C3429, 30	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3431	ECST1EC106Z	T. CAPACITOR CH 25V 10U	1	
C3432	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3433	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C3434-38	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	5	
C3440, 41	ECST1CX106Z	T. CAPACITOR CH 16V 10U	2	
C3442	ECEVOJN220Q	E. CAPACITOR CH 6.3V 22U	1	
C3443	ECST1CX156Z	T. CAPACITOR CH 16V 15U	1	
C3444	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3445	ECST1CX156Z	T. CAPACITOR CH 16V 15U	1	
C3446, 47	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3448	ECUX1H0200CV	C. CAPACITOR CH 50V 2P	1	
C3449	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3451-53	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3	
C3454	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
C3455	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
C3456	ECUX1H680JCV	C. CAPACITOR CH 50V 68P	1	
C3460	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
C3601	ECST1VY104Z	T. CAPACITOR CH 35V 0.1U	1	
C3602	ECEVOGV101Q	E. CAPACITOR CH 4V 100U	1	
C3603, 04	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3607-14	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	8	
C3615-19	ECST1VY104Z	T. CAPACITOR CH 35V 0.1U	5	
C3620, 21	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3622	ECST1ED226Z	T. CAPACITOR CH 25V 22U	1	
C3623	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3624	ECST1OC336Z	T. CAPACITOR CH 16V 33U	1	
C3625	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3626	ECST1OC336Z	T. CAPACITOR CH 16V 33U	1	
C3627	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3628	ECEV1EN4R7Q	E. CAPACITOR CH 25V 4.7U	1	
C3633, 34	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3635	ECST1AX226Z	T. CAPACITOR CH 10V 22U	1	
C3636, 37	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3638	ECST1AX226Z	T. CAPACITOR CH 10V 22U	1	
D3001-03	MA142K	DIODE	3	
D3201-03	MA142K	DIODE	3	
D3401-03	MA142K	DIODE	3	
D3601	MA142K	DIODE	1	
D3602-04	MA8024	DIODE	3	
FL3001	VLF1302	FILTER	1	
FL3002	VLF1303	FILTER	1	
FL3201	VLF1302	FILTER	1	
FL3202	VLF1303	FILTER	1	
FL3401	VLF1302	FILTER	1	
FL3402	VLF1303	FILTER	1	
IC3001	TC4W53FU	IC	1	
IC3002	NJM062M	IC	1	
IC3003	MC1495M	IC	1	
IC3004	NJM062M	IC	1	
IC3005	TC4W53FU	IC	1	
IC3006	AN90860S	IC	1	
IC3201	TC4W53FU	IC	1	
IC3202	NJM062M	IC	1	
IC3203	MC1495M	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC3204	NJM062M	IC	1	
IC3205	TC4W53FU	IC	1	
IC3206	AN90860S	IC	1	
IC3401	TC4W53FU	IC	1	
IC3402	NJM062M	IC	1	
IC3403	MC1495M	IC	1	
IC3404	NJM062M	IC	1	
IC3405	TC4W53FU	IC	1	
IC3406	AN90860S	IC	1	
IC3601	NJM062M	IC	1	
IC3603	NJM064M	IC	1	
IC3604, 05	NJM2904M	IC	2	
IC3606	NJM431U	IC	1	
IC3607	MC74HC4053F	IC	1	
IC3608	XC82AP3002M	IC	1	
IC3609	XC82DN3002M	IC	1	
P1, P2	VJP3125B006	CONNECTOR (MALE) 6P	2	
P3	VJS3791B045	CONNECTOR (FEMALE)	1	
Q3001	XP6401	TRANSISTOR-RESISTOR	1	
Q3003	2SD1819A	TRANSISTOR	1	
Q3004	XP6534	TRANSISTOR-RESISTOR	1	
Q3006	2SA1532-B	TRANSISTOR	1	
Q3007	2SC3930-B	TRANSISTOR	1	
Q3008, 09	2SK662-R	TRANSISTOR	2	
Q3010, 11	2SK508-B	TRANSISTOR	2	
Q3012, 13	2SK662-R	TRANSISTOR	2	
Q3014, 15	2SK508-B	TRANSISTOR	2	
Q3016	XP6435	TRANSISTOR-RESISTOR	1	
Q3018	2SB1218A	TRANSISTOR	1	
Q3019	XP1501	TRANSISTOR-RESISTOR	1	
Q3021	2SK662-R	TRANSISTOR	1	
Q3022	XP1501	TRANSISTOR-RESISTOR	1	
Q3023	2SD1819A	TRANSISTOR	1	
Q3024	2SK662-R	TRANSISTOR	1	
Q3025	XP1501	TRANSISTOR-RESISTOR	1	
Q3027	2SD1819A	TRANSISTOR	1	
Q3028	2SC3930-B	TRANSISTOR	1	
Q3029	2SK662-R	TRANSISTOR	1	
Q3201	XP6401	TRANSISTOR-RESISTOR	1	
Q3203	2SD1819A	TRANSISTOR	1	
Q3204	XP6534	TRANSISTOR-RESISTOR	1	
Q3206	2SA1532-B	TRANSISTOR	1	
Q3207	2SC3930-B	TRANSISTOR	1	
Q3208, 09	2SK662-R	TRANSISTOR	2	
Q3210, 11	2SK508-B	TRANSISTOR	2	
Q3212, 13	2SK662-R	TRANSISTOR	2	
Q3214, 15	2SK508-B	TRANSISTOR	2	
Q3216	XP6435	TRANSISTOR-RESISTOR	1	
Q3218	2SB1218A	TRANSISTOR	1	
Q3219	XP1501	TRANSISTOR-RESISTOR	1	
Q3221	2SK662-R	TRANSISTOR	1	
Q3222	XP1501	TRANSISTOR-RESISTOR	1	
Q3223	2SD1819A	TRANSISTOR	1	
Q3224	2SK662-R	TRANSISTOR	1	
Q3225	XP1501	TRANSISTOR-RESISTOR	1	
Q3227	2SD1819A	TRANSISTOR	1	
Q3228	2SC3930-B	TRANSISTOR	1	
Q3229	2SK662-R	TRANSISTOR	1	
Q3401	XP6401	TRANSISTOR-RESISTOR	1	
Q3403	2SD1819A	TRANSISTOR	1	
Q3404	XP6534	TRANSISTOR-RESISTOR	1	
Q3406	2SA1532-B	TRANSISTOR	1	
Q3407	2SC3930-B	TRANSISTOR	1	
Q3408, 09	2SK662-R	TRANSISTOR	2	
Q3410, 11	2SK508-B	TRANSISTOR	2	
Q3412, 13	2SK662-R	TRANSISTOR	2	
Q3414, 15	2SK508-B	TRANSISTOR	2	
Q3416	XP6435	TRANSISTOR-RESISTOR	1	
Q3418	2SB1218A	TRANSISTOR	1	
Q3419	XP1501	TRANSISTOR-RESISTOR	1	
Q3421	2SK662-R	TRANSISTOR	1	
Q3422	XP1501	TRANSISTOR-RESISTOR	1	
Q3423	2SD1819A	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q3424	2SK662-R	TRANSISTOR	1		R3080	VRE007IE751	M. RESISTOR CH 1/16W 750	1	
Q3425	XP1501	TRANSISTOR-RESISTOR	1		R3081	VRE007IE582	M. RESISTOR CH 1/16W 5.6K	1	
Q3427	2SD1819A	TRANSISTOR	1		R3082	VRE007IE682	M. RESISTOR CH 1/16W 6.8K	1	
Q3428	2SC3930-B	TRANSISTOR	1		R3083	VRE007IE623	M. RESISTOR CH 1/16W 62K	1	
Q3429	2SK662-R	TRANSISTOR	1		R3084	VRE007IE202	M. RESISTOR CH 1/16W 2K	1	
Q3601, 02	2SD1819A	TRANSISTOR	2		R3085	VRE007IE103	M. RESISTOR CH 1/16W 10K	1	
Q3603, 04	2SB956-R	TRANSISTOR	2		R3086	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
Q3605	2SD1280-R	TRANSISTOR	1		R3087	VRE007IE152	M. RESISTOR CH 1/16W 1.5K	1	
					R3088	VRE007IE511	M. RESISTOR CH 1/16W 510	1	
R3001	ERJ3GEYJ332	M. RESISTOR CH 1/16W 3.3K	1		R3089	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3002, 03	VRE007IE331	M. RESISTOR CH 1/16W 330	2		R3090	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R3004	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1		R3091	VRE007IE242	M. RESISTOR CH 1/16W 2.4K	1	
R3005, 06	VRE007IE331	M. RESISTOR CH 1/16W 330	2		R3092	VRE007IE392	M. RESISTOR CH 1/16W 3.9K	1	
R3007	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1		R3093	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3008	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1		R3094	VRE007IE332	M. RESISTOR CH 1/16W 3.3K	1	
R3009	VRE007IE151	M. RESISTOR CH 1/16W 150	1		R3096	ERJ3GEYJ332	M. RESISTOR CH 1/16W 3.3K	1	
R3010	VRE007IE563	M. RESISTOR CH 1/16W 56K	1		R3097	VRE007IE152	M. RESISTOR CH 1/16W 1.5K	1	
R3011	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1		R3098	VRE007IE103	M. RESISTOR CH 1/16W 10K	1	
R3012	VRE007IE362	M. RESISTOR CH 1/16W 3.6K	1		R3099	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3013	VRE007IE223	M. RESISTOR CH 1/16W 22K	1		R3100	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3014	VRE007IE683	M. RESISTOR CH 1/16W 68K	1		R3101	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3015	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1		R3102	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3016	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	1		R3103	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3017	VRE007IE222	M. RESISTOR CH 1/16W 2.2K	1		R3104	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3018	VRE007IE102	M. RESISTOR CH 1/16W 1K	1		R3105	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3019	VRE007IE471	M. RESISTOR CH 1/16W 470	1		R3107	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3020	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1		R3109	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3021	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1		R3111	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3022	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		R3112	VRE007IE752	M. RESISTOR CH 1/16W 7.5K	1	
R3023	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R3113	ERJ3GEYJ224	M. RESISTOR CH 1/16W 220K	1	
R3024	VRE007IE222	M. RESISTOR CH 1/16W 2.2K	1		R3114	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3025	VRE007IE561	M. RESISTOR CH 1/16W 560	1		R3201	ERJ3GEYJ332	M. RESISTOR CH 1/16W 3.3K	1	
R3026	VRE007IE102	M. RESISTOR CH 1/16W 1K	1		R3202, 03	VRE007IE331	M. RESISTOR CH 1/16W 330	2	
R3027	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1		R3204	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R3028	VRE007IE122	M. RESISTOR CH 1/16W 1.2K	1		R3205, 06	VRE007IE331	M. RESISTOR CH 1/16W 330	2	
R3029	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1		R3207	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R3030	VRE007IE332	M. RESISTOR CH 1/16W 3.3K	1		R3208	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R3031	VRE007IE432	M. RESISTOR CH 1/16W 4.3K	1		R3209	VRE007IE151	M. RESISTOR CH 1/16W 150	1	
R3032, 33	VRE007IE183	M. RESISTOR CH 1/16W 18K	2		R3210	VRE007IE563	M. RESISTOR CH 1/16W 56K	1	
R3034	VRE007IE272	M. RESISTOR CH 1/16W 2.7K	1		R3211	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R3035	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R3212	VRE007IE362	M. RESISTOR CH 1/16W 3.6K	1	
R3036	VRE007IE362	M. RESISTOR CH 1/16W 3.6K	1		R3213	VRE007IE223	M. RESISTOR CH 1/16W 22K	1	
R3037	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1K	1		R3214	VRE007IE683	M. RESISTOR CH 1/16W 68K	1	
R3038	VRE007IE334	M. RESISTOR CH 1/16W 330K	1		R3215	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3039	VRE007IE332	M. RESISTOR CH 1/16W 3.3K	1		R3216	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	1	
R3040	VRE007IE152	M. RESISTOR CH 1/16W 1.5K	1		R3217	VRE007IE222	M. RESISTOR CH 1/16W 2.2K	1	
R3041	VRE007IE561	M. RESISTOR CH 1/16W 560	1		R3218	VRE007IE102	M. RESISTOR CH 1/16W 1K	1	
R3042	VRE007IE181	M. RESISTOR CH 1/16W 180	1		R3219	VRE007IE471	M. RESISTOR CH 1/16W 470	1	
R3043	EXB24V224JX	COMBI. R-R 220K	1		R3220	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R3045	EXB24V224JX	COMBI. R-R 220K	1		R3221	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3047	VRE007IE472	M. RESISTOR CH 1/16W 4.7K	1		R3222	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3048	VRE007IE242	M. RESISTOR CH 1/16W 2.4K	1		R3223	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3049, 50	VRE007IE272	M. RESISTOR CH 1/16W 2.7K	2		R3224	VRE007IE222	M. RESISTOR CH 1/16W 2.2K	1	
R3051	VRE007IE682	M. RESISTOR CH 1/16W 6.8K	1		R3225	VRE007IE561	M. RESISTOR CH 1/16W 560	1	
R3052	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	1		R3226	VRE007IE102	M. RESISTOR CH 1/16W 1K	1	
R3053	VRE007IE103	M. RESISTOR CH 1/16W 10K	1		R3227	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3054	VRE007IE682	M. RESISTOR CH 1/16W 6.8K	1		R3228	VRE007IE122	M. RESISTOR CH 1/16W 1.2K	1	
R3055	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1		R3229	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R3056, 57	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2		R3230	VRE007IE332	M. RESISTOR CH 1/16W 3.3K	1	
R3058, 59	VRE007IE473	M. RESISTOR CH 1/16W 47K	2		R3231	VRE007IE432	M. RESISTOR CH 1/16W 4.3K	1	
R3060	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1		R3232	VRE007IE333	M. RESISTOR CH 1/16W 33K	1	
R3061	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1		R3233	VRE007IE472	M. RESISTOR CH 1/16W 4.7K	1	
R3062	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1		R3234	VRE007IE272	M. RESISTOR CH 1/16W 2.7K	1	
R3063	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R3235	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3064	VRE007IE102	M. RESISTOR CH 1/16W 1K	1		R3236	VRE007IE362	M. RESISTOR CH 1/16W 3.6K	1	
R3065	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R3237	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1K	1	
R3066	ERJ3GEYJ394	M. RESISTOR CH 1/16W 390K	1		R3238	VRE007IE334	M. RESISTOR CH 1/16W 330K	1	
R3067, 68	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2		R3239	VRE007IE332	M. RESISTOR CH 1/16W 3.3K	1	
R3069	VRE007IE222	M. RESISTOR CH 1/16W 2.2K	1		R3240	VRE007IE152	M. RESISTOR CH 1/16W 1.5K	1	
R3070	EXB24V101J	COMBI. R-R 100	1		R3241	VRE007IE561	M. RESISTOR CH 1/16W 560	1	
R3072	EXB24V101J	COMBI. R-R 100	1		R3242	VRE007IE181	M. RESISTOR CH 1/16W 180	1	
R3074	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1		R3243	EXB24V224JX	COMBI. R-R 220K	1	
R3075	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1		R3245	EXB24V224JX	COMBI. R-R 220K	1	
R3076	EXB24V103J	COMBI. R-R 10K	1		R3247	VRE007IE472	M. RESISTOR CH 1/16W 4.7K	1	
R3078	EXB24V103J	COMBI. R-R 10K	1		R3248	VRE007IE242	M. RESISTOR CH 1/16W 2.4K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3249, 50	VRE0071E272	M. RESISTOR CH 1/16W 2.7K	2	
R3251	VRE0071E682	M. RESISTOR CH 1/16W 6.8K	1	
R3252	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	1	
R3253	VRE0071E103	M. RESISTOR CH 1/16W 10K	1	
R3254	VRE0071E682	M. RESISTOR CH 1/16W 6.8K	1	
R3255	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R3256, 57	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R3258, 59	VRE0071E473	M. RESISTOR CH 1/16W 47K	2	
R3260	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R3261	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3262	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R3263	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3264	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
R3265	VRE0071E113	M. RESISTOR CH 1/16W 11K	1	
R3266	ERJ3GEYJ394	M. RESISTOR CH 1/16W 390K	1	
R3267, 68	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	2	
R3269	VRE0071E222	M. RESISTOR CH 1/16W 2.2K	1	
R3270	EXB24V101J	COMBI. R-R	100	
R3272	EXB24V101J	COMBI. R-R	100	
R3274	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3275	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3276	EXB24V103J	COMBI. R-R	10K	
R3278	EXB24V103J	COMBI. R-R	10K	
R3280	VRE0071E751	M. RESISTOR CH 1/16W 750	1	
R3281	VRE0071E562	M. RESISTOR CH 1/16W 5.6K	1	
R3282	VRE0071E682	M. RESISTOR CH 1/16W 6.8K	1	
R3283	VRE0071E623	M. RESISTOR CH 1/16W 62K	1	
R3284	VRE0071E202	M. RESISTOR CH 1/16W 2K	1	
R3285	VRE0071E103	M. RESISTOR CH 1/16W 10K	1	
R3286	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R3287	VRE0071E152	M. RESISTOR CH 1/16W 1.5K	1	
R3288	VRE0071E511	M. RESISTOR CH 1/16W 510	1	
R3289	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3290	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R3291	VRE0071E242	M. RESISTOR CH 1/16W 2.4K	1	
R3292	VRE0071E392	M. RESISTOR CH 1/16W 3.9K	1	
R3293	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3294	VRE0071E332	M. RESISTOR CH 1/16W 3.3K	1	
R3296	ERJ3GEYJ332	M. RESISTOR CH 1/16W 3.3K	1	
R3297	VRE0071E152	M. RESISTOR CH 1/16W 1.5K	1	
R3298	VRE0071E103	M. RESISTOR CH 1/16W 10K	1	
R3299	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3300	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3301	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3302	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3303	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3304	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3305-07	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	3	
R3309	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3311	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3312	VRE0071E752	M. RESISTOR CH 1/16W 7.5K	1	
R3313	ERJ3GEYJ224	M. RESISTOR CH 1/16W 220K	1	
R3314	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3401	ERJ3GEYJ332	M. RESISTOR CH 1/16W 3.3K	1	
R3402, 03	VRE0071E331	M. RESISTOR CH 1/16W 330	2	
R3404	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R3405, 06	VRE0071E331	M. RESISTOR CH 1/16W 330	2	
R3407	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R3408	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R3409	VRE0071E151	M. RESISTOR CH 1/16W 150	1	
R3410	VRE0071E563	M. RESISTOR CH 1/16W 56K	1	
R3411	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R3412	VRE0071E362	M. RESISTOR CH 1/16W 3.6K	1	
R3413	VRE0071E223	M. RESISTOR CH 1/16W 22K	1	
R3414	VRE0071E683	M. RESISTOR CH 1/16W 68K	1	
R3415	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3416	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	1	
R3417	VRE0071E222	M. RESISTOR CH 1/16W 2.2K	1	
R3418	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
R3419	VRE0071E471	M. RESISTOR CH 1/16W 470	1	
R3420	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R3421	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3422	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3423	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3424	VRE0071E222	M. RESISTOR CH 1/16W 2.2K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3425	VRE0071E561	M. RESISTOR CH 1/16W 560	1	
R3426	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
R3427	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3428	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1	
R3429	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R3430	VRE0071E332	M. RESISTOR CH 1/16W 3.3K	1	
R3431	VRE0071E432	M. RESISTOR CH 1/16W 4.3K	1	
R3432, 33	VRE0071E183	M. RESISTOR CH 1/16W 18K	2	
R3434	VRE0071E272	M. RESISTOR CH 1/16W 2.7K	1	
R3435	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3436	VRE0071E362	M. RESISTOR CH 1/16W 3.6K	1	
R3437	ERJ3GEYJ105	M. RESISTOR CH 1/16W 10K	1	
R3438	VRE0071E334	M. RESISTOR CH 1/16W 330K	1	
R3439	VRE0071E332	M. RESISTOR CH 1/16W 3.3K	1	
R3440	VRE0071E152	M. RESISTOR CH 1/16W 1.5K	1	
R3441	VRE0071E561	M. RESISTOR CH 1/16W 560	1	
R3442	VRE0071E181	M. RESISTOR CH 1/16W 180	1	
R3443	EXB24V224JX	COMBI. R-R	220K	
R3445	EXB24V224JX	COMBI. R-R	220K	
R3447	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
R3448	VRE0071E242	M. RESISTOR CH 1/16W 2.4K	1	
R3449, 50	VRE0071E272	M. RESISTOR CH 1/16W 2.7K	2	
R3451	VRE0071E682	M. RESISTOR CH 1/16W 6.8K	1	
R3452	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	1	
R3453	VRE0071E103	M. RESISTOR CH 1/16W 10K	1	
R3454	VRE0071E682	M. RESISTOR CH 1/16W 6.8K	1	
R3455	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R3456, 57	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R3458, 59	VRE0071E473	M. RESISTOR CH 1/16W 47K	2	
R3460	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R3461	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3462	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R3463	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3464	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
R3465	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3466	ERJ3GEYJ394	M. RESISTOR CH 1/16W 390K	1	
R3467, 68	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	2	
R3469	VRE0071E222	M. RESISTOR CH 1/16W 2.2K	1	
R3470	EXB24V101J	COMBI. R-R	100	
R3472	EXB24V101J	COMBI. R-R	100	
R3474	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3475	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3476	EXB24V103J	COMBI. R-R	10K	
R3478	EXB24V103J	COMBI. R-R	10K	
R3480	VRE0071E751	M. RESISTOR CH 1/16W 750	1	
R3481	VRE0071E562	M. RESISTOR CH 1/16W 5.6K	1	
R3482	VRE0071E682	M. RESISTOR CH 1/16W 6.8K	1	
R3483	VRE0071E623	M. RESISTOR CH 1/16W 62K	1	
R3484	VRE0071E202	M. RESISTOR CH 1/16W 2K	1	
R3485	VRE0071E103	M. RESISTOR CH 1/16W 10K	1	
R3486	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R3487	VRE0071E152	M. RESISTOR CH 1/16W 1.5K	1	
R3488	VRE0071E511	M. RESISTOR CH 1/16W 510	1	
R3489	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3490	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R3491	VRE0071E242	M. RESISTOR CH 1/16W 2.4K	1	
R3492	VRE0071E392	M. RESISTOR CH 1/16W 3.9K	1	
R3493	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3494	VRE0071E332	M. RESISTOR CH 1/16W 3.3K	1	
R3496	ERJ3GEYJ332	M. RESISTOR CH 1/16W 3.3K	1	
R3497	VRE0071E152	M. RESISTOR CH 1/16W 1.5K	1	
R3498	VRE0071E103	M. RESISTOR CH 1/16W 10K	1	
R3499	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3500	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3501	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3502	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3503	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3504	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3505	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3507	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3509	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3511	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R3512	VRE0071E752	M. RESISTOR CH 1/16W 7.5K	1	
R3513	ERJ3GEYJ224	M. RESISTOR CH 1/16W 220K	1	
R3514	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3601	VRE0071E822	M. RESISTOR CH 1/16W 8.2K	1	
R3602	VRE0071E333	M. RESISTOR CH 1/16W 33K	1	
R3603	ERJ3GEYJ151	M. RESISTOR CH 1/16W 150	1	
R3604-07	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	4	
R3608	ERJ3GEYJ273	M. RESISTOR CH 1/16W 27K	1	
R3609-12	ERJ3GEYJ123	M. RESISTOR CH 1/16W 12K	4	
R3613	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R3617	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3618	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R3619	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3621	VRE0071E151	M. RESISTOR CH 1/16W 150	1	
R3622	VRE0071E331	M. RESISTOR CH 1/16W 330	1	
R3623	VRE0071E200	M. RESISTOR CH 1/16W 20	1	
R3624, 25	VRE0071E301	M. RESISTOR CH 1/16W 300	2	
R3626	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
R3627	VRE0071E822	M. RESISTOR CH 1/16W 8.2K	1	
R3628	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R3629	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R3630	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R3631	VRE0071E393	M. RESISTOR CH 1/16W 39K	1	
R3632	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3633	VRE0071E183	M. RESISTOR CH 1/16W 18K	1	
R3634	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3635	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3636	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R3637, 38	VRE0071E393	M. RESISTOR CH 1/16W 39K	2	
R3639	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3640	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3641	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
R3642	VRE0071E303	M. RESISTOR CH 1/16W 30K	1	
R3643	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3644	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3645	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3646	EXB24V103J	COMBI. R-R	10K	1
R3647	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3648	VRE0071E913	M. RESISTOR CH 1/16W 91K	1	
R3649	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1	
R3650	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3651	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R3652	ERJ3GEYJ224	M. RESISTOR CH 1/16W 22K	1	
R3653-56	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	4	
R3657	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3658	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3660	ERJ3GEYJ382	M. RESISTOR CH 1/16W 3.9K	1	
R3661, 62	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
T63001-03	EYF6CU	TEST POINT	3	
TP3202, 03	EYF6CU	TEST POINT	2	
TP3402, 03	EYF6CU	TEST POINT	2	
VR3001	VRV0113B503	V. RESISTOR	50K	1
VR3002	VRV0113B202	V. RESISTOR	2K	1
VR3003	VRV0113B203	V. RESISTOR	20K	1
VR3004	VRV0113B104	V. RESISTOR	100K	1
VR3201	VRV0113B503	V. RESISTOR	50K	1
VR3202	VRV0113B202	V. RESISTOR	2K	1
VR3204	VRV0113B104	V. RESISTOR	100K	1
VR3401	VRV0113B503	V. RESISTOR	50K	1
VR3402	VRV0113B202	V. RESISTOR	2K	1
VR3403	VRV0113B203	V. RESISTOR	20K	1
VR3404	VRV0113B104	V. RESISTOR	100K	1
E4	VEP20735A	CCD ANGLE P. C. BOARD	1 (RTL)	
C101	ECEA1HGE220	E. CAPACITOR	50V 22U	1
C102	ECA0JFQ121	E. CAPACITOR	16V 120U	1
C103	ECA0JFQ101	E. CAPACITOR	6.3V 100U	1
C104-10	EGUX1E104ZFV	C. CAPACITOR CH 25V	0.1U	7
C111	EGUX1H102JV	C. CAPACITOR CH 50V	1000P	1
C112, 13	EGUX1E104ZFV	C. CAPACITOR CH 25V	0.1U	2
C114	VCK0134K104	C. CAPACITOR	0.1U	1
C201	ECEA1HGE220	E. CAPACITOR	50V 22U	1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
G202	ECA1CFQ121	E. CAPACITOR	16V 120U	1
G203	ECA0JFQ101	E. CAPACITOR	6.3V 100U	1
G204-10	EGUX1E104ZFV	C. CAPACITOR CH 25V	0.1U	7
G211	EGUX1H102JV	C. CAPACITOR CH 50V	1000P	1
G212	EGUX1E104ZFV	C. CAPACITOR CH 25V	0.1U	1
G213	ECA0JFQ101	E. CAPACITOR	6.3V 100U	1
G214	EGUX1E104ZFV	C. CAPACITOR CH 25V	0.1U	1
G215	ECA1CFQ121	E. CAPACITOR	16V 120U	1
G218	EGUX1E104ZFV	C. CAPACITOR CH 25V	0.1U	1
G219	ECST1CY105Z	T. CAPACITOR CH 18V	1U	1
G220, 21	EGUX1H560JCV	C. CAPACITOR CH 50V	56P	2
G222, 23	EGUX1E104ZFV	C. CAPACITOR CH 25V	0.1U	2
G224	VCK0134K104	C. CAPACITOR	0.1U	1
G301	ECEA1HGE220	E. CAPACITOR	50V 22U	1
G302	ECA1CFQ121	E. CAPACITOR	16V 120U	1
G303	ECA0JFQ101	E. CAPACITOR	6.3V 100U	1
G304-10	EGUX1E104ZFV	C. CAPACITOR CH 25V	0.1U	7
G311	EGUX1H102JV	C. CAPACITOR CH 50V	1000P	1
G312, 13	EGUX1E104ZFV	C. CAPACITOR CH 25V	0.1U	2
G314	VCK0134K104	C. CAPACITOR	0.1U	1
D101	MA142K	DIODE		1
D201	MA142K	DIODE		1
D202	MA704A	DIODE		1
D203	MA159	DIODE		1
D301	MA142K	DIODE		1
IC101	UPD18510GR	IC		1
IC201	UPD18510GR	IC		1
IC204	74AC04SJ	IC		1
IC301	UPD18510GR	IC		1
L201, 02	VLP0352	COIL		2
P201, 02	VJS2907D018	CONNECTOR (FEMALE)		2
Q101	2SC3356-B	TRANSISTOR		1
Q201	2SC3356-B	TRANSISTOR		1
Q202	2SA1462	TRANSISTOR		1
Q203	2SC3735	TRANSISTOR		1
Q301	2SC3356-B	TRANSISTOR		1
R101	ERJ3GEYJ105	M. RESISTOR CH 1/16W	1M	1
R102	VRE0071E101	M. RESISTOR CH 1/16W	100	1
R103	ERJ3GEYOR00	M. RESISTOR CH 1/16W	0	1
R104	VRE0071E100	M. RESISTOR CH 1/16W	10	1
R105	VRE0071E223	M. RESISTOR CH 1/16W	22K	1
R106	VRE0071E103	M. RESISTOR CH 1/16W	10K	1
R107	VRE0071E683	M. RESISTOR CH 1/16W	68K	1
R201	ERJ3GEYJ105	M. RESISTOR CH 1/16W	1M	1
R202	VRE0071E101	M. RESISTOR CH 1/16W	100	1
R203	ERJ3GEYOR00	M. RESISTOR CH 1/16W	0	1
R204	VRE0071E100	M. RESISTOR CH 1/16W	10	1
R205	VRE0071E223	M. RESISTOR CH 1/16W	22K	1
R206	VRE0071E103	M. RESISTOR CH 1/16W	10K	1
R207	VRE0071E683	M. RESISTOR CH 1/16W	68K	1
R212	ERJ3GEYJ100	M. RESISTOR CH 1/16W	10	1
R214	ERJ3GEYJ104	M. RESISTOR CH 1/16W	100K	1
R215	VRE0071E223	M. RESISTOR CH 1/16W	22K	1
R216	VRE0071E103	M. RESISTOR CH 1/16W	10K	1
R217	ERJ3GEYJ100	M. RESISTOR CH 1/16W	10	1
R221	ERJ3GEYJ100	M. RESISTOR CH 1/16W	10	1
R225	ERJ3GEYJ100	M. RESISTOR CH 1/16W	10	1
R229	ERJ3GEYJ100	M. RESISTOR CH 1/16W	10	1
R233	ERJ3GEYJ100	M. RESISTOR CH 1/16W	10	1
R237	ERJ3GEYJ100	M. RESISTOR CH 1/16W	10	1
R301	ERJ3GEYJ105	M. RESISTOR CH 1/16W	1M	1
R302	VRE0071E101	M. RESISTOR CH 1/16W	100	1
R303	ERJ3GEYOR00	M. RESISTOR CH 1/16W	0	1
R304	VRE0071E100	M. RESISTOR CH 1/16W	10	1
R305	VRE0071E223	M. RESISTOR CH 1/16W	22K	1
R306	VRE0071E103	M. RESISTOR CH 1/16W	10K	1
R307	VRE0071E683	M. RESISTOR CH 1/16W	68K	1

VEPOOW29A VEP00Y28A VEP26074D

AJ-D800E

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E5	VEPOOW29	FLEXIBLE P.C. BOARD	1	(RTL)	D3500, 01	1A142K	DIODE	2	
■ E6	VEP00Y28A	MOTHER P.C. BOARD	1	(RTL)	IC3501	1N1885	IC	1	
C9601-12	ECUX1H102JCV	C. CAPACITOR CH 50V 1000P	12		IC3502	VS12480B	IC	1	
C9614, 15	ECUX1H102JCV	C. CAPACITOR CH 50V 1000P	2		IC3502	VS12480B	IC	1	
L9601-25	VLF1315A102	FILTER	25		IC3503	K6258CLG7L	IC	1	
L9626	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0	1	IC3504	STK12068S45	IC	1	
L9627	VLF1315A102	FILTER	1		IC3505	VS12481B	IC	1	
L9628	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0	1	IC3505	VS12481B	IC	1	
L9629-31	VLP0147	COIL	3		IC3506	NJM064M	IC	1	
L9632-37	VLF1315A102	FILTER	6		IC3507	UPD71055GB	IC	1	
L9638	VLP0147	COIL	1		IC3508	1N12821R	IC	1	
P9601	VJP3808E100	CONNECTOR (MALE)	1		IC3510	MC14053BF	IC	1	
P9602-06	VJS3657	CONNECTOR (FEMALE)	5		IC3511	NJM064M	IC	1	
P9607	VJP3125B006	CONNECTOR (MALE)	6P	1	IC3513	NJM064M	IC	1	
P9608	VJP3125B010	CONNECTOR (MALE)	1		IC3514	74AC138SJ	IC	1	
P9610	VJP3125B014	CONNECTOR (MALE)	1		IC3515	74AC115J	IC	1	
P9611	VJP3125B010	CONNECTOR (MALE)	1		IC3516	74AC00SJ	IC	1	
P9612	VJP3518B002	CONNECTOR (MALE)	1		IC3517	74AC04SJ	IC	1	
P9613	VJP3125B005	CONNECTOR (MALE)	5P	1	IC3518	XC62AP5002P	IC	1	
P9614	VJP3808E140	CONNECTOR (MALE)	1		IC3519	MB88344PFV	IC	1	
P9617	VJP3125B012	CONNECTOR (MALE)	1		IC3520	MC74HC4052F	IC	1	
P9619	VJS3791B045	CONNECTOR (FEMALE)	1		IC3521-23	MB88351PF	IC	3	
P9620	VJP3125B006	CONNECTOR (MALE)	6P	1	IC3525	MC14053BF	IC	1	
P9621	VJP3125B004	CONNECTOR (MALE)	1		IC3526	NJM2904M	IC	1	
P9622	VJP3125B003	CONNECTOR (MALE)	3P	1	IC3528	74AC138SJ	IC	1	
R9603	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0	1	IC3529	MC14053BF	IC	1	
R9605-08	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0	4	IC3530	IDT71321A55	IC	1	
■ E7	VEP26074D	CAMERA SYSOON P.C. BOARD	1	(RTL)	IC3531	MC74HC244AF	IC	1	
C3500	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		IC3532	MC14053BF	IC	1	
C3502, 03	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2		IC3533	MC74HC244AF	IC	1	
C3504	ECEV1HNO10Q	E. CAPACITOR CH 50V 1U	1		IC3701	NJM2904M	IC	1	
C3505, 06	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	2		IF3502	VJF1047	IC SOCKET	1	
C3507	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		IF3505	VJF1047	IC SOCKET	1	
C3509	ECEV1HVOR1Q	E. CAPACITOR CH 50V 0.1U	1		IS3502	VJS3427X032	CONNECTOR (FEMALE)	1	
C3511	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		IS3505	VJS3427X032	CONNECTOR (FEMALE)	1	
C3512	ECST1VY224Z	T. CAPACITOR CH 35V 0.22U	1		L3500	VLQ0319K101	COIL 100UH	1	
C3513	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		L3501	VLQ0319K100	COIL 10UH	1	
C3514	ECST1VY224Z	T. CAPACITOR CH 35V 0.22U	1		L3502	VLQ0319K101	COIL 100UH	1	
C3515-19	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	5		P3501	VJP3657	CONNECTOR (MALE)	1	
C3520	ECEVOJV101Q	E. CAPACITOR CH6.3V 100U	1		P3502	VJP3506A100	CONNECTOR (MALE)	1	
C3521	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		P3503	VJP3358C012	CONNECTOR (MALE)	1	
C3523-28	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	6		Q3500-02	2SA1532-B	TRANSISTOR	3	
C3531	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		Q3503-05	2SD1819A	TRANSISTOR	3	
C3533	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1		QR3500-02	UN5213	TRANSISTOR-RESISTOR	3	
C3534	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		QR3503	UN5113	TRANSISTOR-RESISTOR	1	
C3535	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1		R3500	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
C3536-40	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	5		R3501	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
C3558-60	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	3		R3503, 04	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
C3561	ECEV1CV220Q	E. CAPACITOR CH 16V 22U	1		R3505	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
C3562	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		R3506	ERJ3GEYJ680	M. RESISTOR CH 1/16W 68	1	
C3564	ECEV1EN3R3Q	E. CAPACITOR CH 25V 3.3U	1		R3507	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
C3565, 66	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2		R3508	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
C3567, 68	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	2		R3510	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
C3571-76	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	6		R3511, 12	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
C3577-79	ECST1VY224Z	T. CAPACITOR CH 35V 0.22U	3		R3513-17	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	5	
C3580-82	ECEVOJN100Q	E. CAPACITOR CH6.3V 10U	3		R3518-23	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	6	
C3583-88	ECST1VY474Z	T. CAPACITOR CH 35V 0.47U	6		R3524	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
C3593-95	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	3		R3526-28	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
C3596-98	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	3		R3529	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
C3599	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		R3531	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
C3610	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		R3535, 36	VRE0071E363	M. RESISTOR CH 1/16W 36K	2	
C3701-03	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	3		R3537	VRE0071E683	M. RESISTOR CH 1/16W 68K	1	
C3706	ECOAJFQ151	E. CAPACITOR 6.3V 150U	1		R3538	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
C3707	ECOAJFQ101	E. CAPACITOR 6.3V 100U	1		R3539	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
					R3540	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
					R3541, 42	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3543	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R3545	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3547-49	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	3	
R3550	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
R3551	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R3553, 54	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R3555	ERJ3GEYJ472	M. RESISTOR CH 1/16W 8.2K	1	
R3562	VRE0071E183	M. RESISTOR CH 1/16W 18K	1	
R3563	VRE0071E153	M. RESISTOR CH 1/16W 15K	1	
R3564	ERJ3GEYJ273	M. RESISTOR CH 1/16W 27K	1	
R3565	VRE0071E183	M. RESISTOR CH 1/16W 18K	1	
R3566	VRE0071E123	M. RESISTOR CH 1/16W 12K	1	
R3567	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3575-77	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	3	
R3578	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3579	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
R3580	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R3581	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R3582-84	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	3	
R3585	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R3589	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R3590-93	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	4	
R3594	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3595	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R3597	VRE0071E103	M. RESISTOR CH 1/16W 10K	1	
R3598	ERJ3GEYJ823	M. RESISTOR CH 1/16W 82K	1	
R3599	ERJ3GEYJ824	M. RESISTOR CH 1/16W 820K	1	
R3600	ERJ3GEYJ823	M. RESISTOR CH 1/16W 82K	1	
R3601	ERJ3GEYJ824	M. RESISTOR CH 1/16W 820K	1	
R3602	ERJ3GEYJ823	M. RESISTOR CH 1/16W 82K	1	
R3603	ERJ3GEYJ824	M. RESISTOR CH 1/16W 820K	1	
R3604	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3605	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R3606	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3607	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R3608	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R3609	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R3610-13	VRE0071E103	M. RESISTOR CH 1/16W 10K	4	
R3614-16	VRE0071E883	M. RESISTOR CH 1/16W 88K	3	
R3617-19	VRE0071E153	M. RESISTOR CH 1/16W 15K	3	
R3620-22	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	3	
R3625	VRE0071E272	M. RESISTOR CH 1/16W 2.7K	1	
R3626-28	VRE0071E332	M. RESISTOR CH 1/16W 3.3K	3	
R3629-31	ERJ3GEYJ884	M. RESISTOR CH 1/16W 880K	3	
R3632-34	VRE0071E473	M. RESISTOR CH 1/16W 47K	3	
R3635, 36	VRE0071E272	M. RESISTOR CH 1/16W 2.7K	2	
R3637	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R3638-40	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
R3651	VRE0071E882	M. RESISTOR CH 1/16W 8.8K	1	
R3652	VRE0071E123	M. RESISTOR CH 1/16W 12K	1	
R3701	VRE0071E103	M. RESISTOR CH 1/16W 10K	1	
R3702	VRE0071E303	M. RESISTOR CH 1/16W 30K	1	
R3703	VRE0071E103	M. RESISTOR CH 1/16W 10K	1	
T83500	EYF80U	TEST POINT	1	
TP3500-16	EYF80U	TEST POINT	17	
X3501	V5X0824	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	X5B2+6	SCREW	2	
■ E8	VEP23275A	CAMERA DSP P. C. BOARD	1 (RTL)	
C3001	ECEV0JV101Q	E. CAPACITOR CH6. 3V 100U	1	
C3002	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3003	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3004	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3006-11	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	6	
C3013	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3014, 15	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3017-20	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4	
C3022	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3023	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3024	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3026-31	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	6	
C3033	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3034, 35	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3037-39	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3	
C3042	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3043	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3044	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3046-51	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	6	
C3053	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3054, 55	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3057-59	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3	
C3061	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3063	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3065	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3066	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3067, 68	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3069, 70	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	2	
C3071-73	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3	
C3074	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3075	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3077	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3101-07	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	7	
C3108	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C3109-17	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	9	
C3119-24	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	6	
C3127	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3130	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3131	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C3201	ECEVOJV470Q	E. CAPACITOR CH6. 3V 47U	1	
C3202	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3203	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C3204-08	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	5	
C3210	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3211	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C3212-16	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	5	
C3217	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C3218	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3223	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C3224	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3301-04	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4	
C3305-07	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	3	
C3311-15	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	5	
C3316-18	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	3	
C3319	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3320	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C3321	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3323	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C3324	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3325	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C3326	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C3327	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C3328	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
IC3001-03	XC82AP3002P	IC	3	
IC3004-06	MM6577H	IC	3	
IC3007-09	HD151015	IC	3	
IC3010-12	74AG574SJ	IC	3	
IC3013	TC7SH86FU	IC	1	
IC3014	NJM2904M	IC	1	
IC3015	HD151015	IC	1	
IC3016	NJM431U	IC	1	
IC3101	VY06632	IC	1	
IC3102	VY06633A	IC	1	
IC3103	MC74HC04AF	IC	1	
IC3104	74AC88SJ	IC	1	
IC3201	XC82AP5002P	IC	1	
IC3202	ADV7122KST50	IC	1	
IC3203	XC82AP5002P	IC	1	
IC3204	ADV7122KST50	IC	1	
IC3205, 06	AD588JR	IC	2	
IC3301	K8256CLG7L	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC3302	MC74HC245AF	IC	1		C3008, 07	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
IC3303	MB86023PF	IC	1		C3008	EQUX1H121JCV	C. CAPACITOR CH 50V 120P	1	
IC3304	K6256CLG7L	IC	1		C3009	EQUX1H120JCV	C. CAPACITOR CH 50V 12P	1	
IC3305	MC74HC245AF	IC	1		C3010	EQUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
IC3306	MB86023PF	IC	1		C3011	EQUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
IC3307	XC62AP5002P	IC	1		C3013	ECEV1HV010Q	E. CAPACITOR CH 50V 1U	1	
IC3308	XC62DN5002P	IC	1		C3014	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
L3001	VLQ0319K101	COIL 100UH	1		C3016	EQUX1H121JCV	C. CAPACITOR CH 50V 120P	1	
L3002	ERJ8G0Y0R00	M. RESISTOR CH 1/16W 0	1		C3017	EQUX1H120JCV	C. CAPACITOR CH 50V 12P	1	
L3003	VLQ0319K101	COIL 100UH	1		C3018	EQUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
L3201, 02	VLQ0319K101	COIL 100UH	2		C3019	EQUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
P3001	VJS3505A100	CONNECTOR (FEMALE)	1		C3021	ECEV1HV010Q	E. CAPACITOR CH 50V 1U	1	
P3002	VJP3658D030	CONNECTOR (MALE)	1		C3022, 23	EQUX1H220JCV	C. CAPACITOR CH 50V 22P	2	
Q3201	2SB1218A	TRANSISTOR	1		C3024	EQUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
Q3202	2SD1819A	TRANSISTOR	1		C3025	EQUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
Q3203	2SB1218A	TRANSISTOR	1		C3026	EQUX1H060DCV	C. CAPACITOR CH 50V 6P	1	
Q3204, 05	2SD1819A	TRANSISTOR	2		C3027	EQUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
R3001	VRE0071E151	M. RESISTOR CH 1/16W 150	1		C3028	EQUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
R3002	VRE0071E152	M. RESISTOR CH 1/16W 1.5K	1		C3029	EQUX1H561JCV	C. CAPACITOR CH 50V 560P	1	
R3033-35	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	3		C3030-32	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	3	
R3041	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1		C3033	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3042-44	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	3		C3034	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
R3045-47	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	3		C3035	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3050-64	EXB24V101J	COMBI. R-R	100	15	C3036	EQHU1C473JB	P. CAPACITOR 18V 0.047U	1	
R3066	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1		C3037	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3068, 69	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2		C3038	EQHU1C473JB	P. CAPACITOR 18V 0.047U	1	
R3071, 72	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2		C3039	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3073-75	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	3		C3040	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
R3102	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1		C3041	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3104	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1		C3042	EQHU1C473JB	P. CAPACITOR 18V 0.047U	1	
R3105-07	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	3		C3043	EQUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
R3109, 10	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2		C3044	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3112	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1		C3045	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
R3114	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1		C3046	EQUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
R3118	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1		C3047	EQUX1H0200CV	C. CAPACITOR CH 50V 2P	1	
R3119-28	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	10		C3048	EQUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
R3141	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1		C3049	EQUX1H680JCV	C. CAPACITOR CH 50V 68P	1	
R3201-25	EXB24V101J	COMBI. R-R	100	25	C3050	EQUX1H090DCV	C. CAPACITOR CH 50V 9P	1	
R3251	VRE0071E561	M. RESISTOR CH 1/16W 560	1		C3051	EQUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
R3252-54	VRE0071E750	M. RESISTOR CH 1/16W 75	3		C3052	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3255	VRE0071E561	M. RESISTOR CH 1/16W 560	1		C3053, 54	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	2	
R3256, 57	VRE0071E750	M. RESISTOR CH 1/16W 75	2		C3055	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3258	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1		C3056	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
R3259	VRE0071E302	M. RESISTOR CH 1/16W 3K	1		C3057	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3260	VRE0071E122	M. RESISTOR CH 1/16W 1.2K	1		C3058	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
R3261	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1		C3059	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3262	VRE0071E222	M. RESISTOR CH 1/16W 2.2K	1		C3060	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
R3263	VRE0071E750	M. RESISTOR CH 1/16W 75	1		C3061	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3301	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	1		C3064, 65	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
R3302-04	ERJ3GEYJ124	M. RESISTOR CH 1/16W 120K	3		C3068	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
R3305	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	1		C3069	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
R3306-08	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	3		C3070-73	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4	
R3312-14	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3		C3101	EQUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
R3315-17	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	3		C3102	EQUX1H181JCV	C. CAPACITOR CH 50V 180P	1	
TG3001	EYF6CU	TEST POINT	1		C3103	EQUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
TG3101	EYF6CU	TEST POINT	1		C3104	EQUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
TG3201	EYF6CU	TEST POINT	1		C3105-10	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	6	
TP3001-07	EYF6CU	TEST POINT	7		C3111	EQUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
TP3101-06	EYF6CU	TEST POINT	6		C3112	EQUX1H181JCV	C. CAPACITOR CH 50V 180P	1	
TP3201-06	EYF6CU	TEST POINT	6		C3113	EQUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
VR3001	VRV0161B102	V. RESISTOR 1K	1		C3114	EQUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
■ E9	VEP23276B	CAMERA ENCODER P. C. BOARD	1	(RTL)	C3115	EQUX1H181JCV	C. CAPACITOR CH 50V 180P	1	
C3001	EQUX1H560JCV	C. CAPACITOR CH 50V 56P	1		C3116	EQUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C3002	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		C3120	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
					C3121	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
					C3122	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
					C3123	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
					C3124	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
					C3125	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
					C3126	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
					C3127	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
					C3128	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
					C3129	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
					C3130	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
					C3131	EQUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
G3132	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		IC3404	AD8011AR	IC	1	
G3134	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		IC3405	XC82AP5002P	IC	1	
G3135	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		IC3406	AD8011AR	IC	1	
G3136	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1						
G3137	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		L3002	VLQ0426J820	COIL	82UH	1
G3138	ECUX1H181JGV	C. CAPACITOR CH 50V 180P	1		L3003	VLQ0163J820	COIL	82UH	1
G3139	ECEV1H0010Q	E. CAPACITOR CH 50V 1U	1		L3004, 05	VLQ0426J470	COIL	47UH	2
G3140-42	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3		L3006	VLQ0426J180	COIL	18UH	1
G3143	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		L3007	VLQ0426J560	COIL	56UH	1
G3144	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		L3008, 09	VLQ0426J120	COIL	12UH	2
G3145	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		L3010-13	VLQ0319K101	COIL	100UH	4
G3146	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		L3101-03	VLQ0426J101	COIL	100UH	3
G3148, 49	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2		L3104-06	VLQ0319K101	COIL	100UH	3
G3201	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		L3108, 09	VLQ0319K101	COIL	100UH	2
G3202	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		L3201-04	VLQ0319K101	COIL	100UH	4
G3203	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		L3401-03	VLQ0319K101	COIL	100UH	3
G3204	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1						
G3205	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		P3001	VJP3657	CONNECTOR (MALE)		1
G3206	ECUX1H1000CV	C. CAPACITOR CH 50V 10P	1						
G3207, 08	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2		Q3003	2SD1819A	TRANSISTOR		1
G3209, 10	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	2		Q3005	2SD1819A	TRANSISTOR		1
G3211	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		Q3006-08	2SB1218A	TRANSISTOR		3
G3212	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		Q3009	2SD1819A	TRANSISTOR		1
G3213	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		Q3010	XM4401	TRANSISTOR-RESISTOR		1
G3214	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		Q3011	XM4501	TRANSISTOR-RESISTOR		1
G3215	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		Q3012	XM4401	TRANSISTOR-RESISTOR		1
G3216	ECUX1H1000CV	C. CAPACITOR CH 50V 10P	1		Q3013	XM4501	TRANSISTOR-RESISTOR		1
G3217	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		Q3014, 15	2SD1819A	TRANSISTOR		2
G3219, 20	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	2		Q3016	XM4501	TRANSISTOR-RESISTOR		1
G3221	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		Q3101	XM4401	TRANSISTOR-RESISTOR		1
G3224-27	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4		Q3102	XM4501	TRANSISTOR-RESISTOR		1
G3401	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		Q3103-06	2SD1819A	TRANSISTOR		4
G3402-04	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3		Q3107-09	2SB1218A	TRANSISTOR		3
G3405	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		Q3201-04	2SD1819A	TRANSISTOR		4
G3406	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		Q3206	XM4401	TRANSISTOR-RESISTOR		1
G3407	ECEVOGV221Q	E. CAPACITOR CH 4V 220U	1		Q3207	XM4501	TRANSISTOR-RESISTOR		1
G3409-11	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3		Q3209, 10	2SD1819A	TRANSISTOR		2
G3412	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		Q3212	2SD1819A	TRANSISTOR		1
G3413	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		Q3214	XM4401	TRANSISTOR-RESISTOR		1
G3414	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		Q3215	XM4501	TRANSISTOR-RESISTOR		1
G3415-17	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	3		Q3401-03	2SD1819A	TRANSISTOR		3
G3418	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1						
G3419	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		R3001	VRE0071E470	M. RESISTOR CH 1/16W 47	1	
G3420	ECEVOGV221Q	E. CAPACITOR CH 4V 220U	1		R3002	VRE0071E101	M. RESISTOR CH 1/16W 100	1	
G3421	ECUX1H0500CV	C. CAPACITOR CH 50V 5P	1		R3003	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
G3422	ECEVOJN470Q	E. CAPACITOR CH6. 3V 47U	1		R3010	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
G3423	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		R3011	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
G3424	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		R3012	VRE0071E241	M. RESISTOR CH 1/16W 240	1	
G3425, 26	ECUX1H220JGV	C. CAPACITOR CH 50V 22P	2		R3013	VRE0071E361	M. RESISTOR CH 1/16W 360	1	
G3427	ECUX1H470JGV	C. CAPACITOR CH 50V 47P	1		R3015	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
G3428-31	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4		R3020	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
G3434	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		R3021	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
G3435	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		R3022, 23	VRE0071E361	M. RESISTOR CH 1/16W 360	2	
G3436	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1		R3025	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
G3437	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1		R3026	VRE0071E821	M. RESISTOR CH 1/16W 820	1	
					R3027	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
FL3101-03	VLF1305	FILTER	3		R3028	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
FL3201, 02	VLF1305	FILTER	2		R3029	VRE0071E821	M. RESISTOR CH 1/16W 820	1	
					R3030	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
IC3001	AD8047AR	IC	1		R3031	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
IC3003	XC82AP5002P	IC	1		R3032	VRE0071E471	M. RESISTOR CH 1/16W 470	1	
IC3004	M51272FP	IC	1		R3033	VRE0071E241	M. RESISTOR CH 1/16W 240	1	
IC3005	XC82DN5002P	IC	1		R3034	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
IC3006	TC4W53FU	IC	1		R3038, 39	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
IC3101	AD8011AR	IC	1		R3040	VRE0071E273	M. RESISTOR CH 1/16W 27K	1	
IC3102	MC74HC4053F	IC	1		R3041, 42	VRE0071E183	M. RESISTOR CH 1/16W 18K	2	
IC3103	XC82AP5002P	IC	1		R3043	VRE0071E273	M. RESISTOR CH 1/16W 27K	1	
IC3104	XC82DN5002P	IC	1		R3044	VRE0071E821	M. RESISTOR CH 1/16W 820	1	
IC3105	NJM062M	IC	1		R3045	VRE0071E821	M. RESISTOR CH 1/16W 820	1	
IC3106	MC74HC00AF	IC	1		R3046	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
IC3107	TC4W53FU	IC	1		R3047	VRE0071E221	M. RESISTOR CH 1/16W 220	1	
IC3201, 02	AD8011AR	IC	2		R3048	VRE0071E272	M. RESISTOR CH 1/16W 2.7K	1	
IC3203	MC74HC4053F	IC	1		R3049	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
IC3204, 05	TC4W53FU	IC	2		R3050, 51	VRE0071E561	M. RESISTOR CH 1/16W 560	2	
IC3401-03	NJM2535M	IC	3		R3052, 53	ERJ3GEYJ220	M. RESISTOR CH 1/16W 22	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
SW3201-02	VSS0342	SWITCH	2	
TG3001	EYF6CU	TEST POINT	1	
TG3201	EYF6CU	TEST POINT	1	
TP3001-07	EYF6CU	TEST POINT	7	
TP3104	EYF6CU	TEST POINT	1	
TP3203-04	EYF6CU	TEST POINT	2	
TP3401-04	EYF6CU	TEST POINT	4	
VC3001	VCV0047	TRIMMER	1	
VR3003	EVW7JGA00B2	V. RESISTOR 220	1	
VR3005	EVW7JGA00B2	V. RESISTOR 220	1	
VR3006	EVW7JGA00B14	V. RESISTOR 10K	1	
VR3007	EVW7JGA00B23	V. RESISTOR 2K	1	
VR3008-09	VRV0161B202	V. RESISTOR 2K	2	
VR3010	VRV0161B201	V. RESISTOR 200	1	
VR3011	EVW7JGA00B23	V. RESISTOR 2K	1	
VR3012	VRV0161B201	V. RESISTOR 200	1	
VR3101	EVW7JGA00B14	V. RESISTOR 10K	1	
VR3102	EVW7JGA00B2	V. RESISTOR 220	1	
VR3103	EVW7JGA00B14	V. RESISTOR 10K	1	
VR3104	EVW7JGA00B2	V. RESISTOR 220	1	
VR3105	EVW7JGA00B14	V. RESISTOR 10K	1	
VR3106	EVW7JGA00B2	V. RESISTOR 220	1	
VR3201-02	EVW7JGA00B2	V. RESISTOR 220	2	
VR3401	EVW7JGA00B2	V. RESISTOR 220	1	
VR3403	EVW7JGA00B2	V. RESISTOR 220	1	
		MISCELLANEOUS		
	XS82-8	SCREW	2	
■ E10	VEP23446B	CAMERA SYNC P.C. BOARD	1	(RTL) INCLUDING E11
■ E11	VEP20747A	CAMERA SYNC SUB P.C. BOARD	1	(RTL) INCLUDED E10
G1	EGST1CX106Z	T. CAPACITOR OH 18V 10U	1	
G2	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3	EGST1CX106Z	T. CAPACITOR OH 18V 10U	1	
G4, G5	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	2	
G3001-02	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	2	
G3004-05	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	2	
G3013	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3014	ECUX1H330JCV	C. CAPACITOR OH 50V 33P	1	
G3015-18	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	2	
G3017	ECUX1H220JCV	C. CAPACITOR OH 50V 22P	1	
G3020	ECUX1H880JCV	C. CAPACITOR OH 50V 88P	1	
G3021-22	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	2	
G3023	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3024	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3025	ECUX1H103KBV	C. CAPACITOR OH 50V 0.01U	1	
G3026-28	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	3	
G3029	ECEV1HW010Q	E. CAPACITOR OH 50V 1U	1	
G3030	ECUX1H102JV	C. CAPACITOR OH 50V 1000P	1	
G3031	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3032	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3035	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3036	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3037	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3038	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3041	ECEV1GV220Q	E. CAPACITOR OH 18V 22U	1	
G3042	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3045	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3046	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3047	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3048	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3049	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3050	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3051	ECUX1H561JCV	C. CAPACITOR OH 50V 560P	1	
G3057-64	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	8	
G3066	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3067	ECUX1H103KBV	C. CAPACITOR OH 50V 0.01U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
G3068-70	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	3	
G3071	ECEV1HW010Q	E. CAPACITOR OH 50V 1U	1	
G3072	ECUX1H102JV	C. CAPACITOR OH 50V 1000P	1	
G3073	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3074	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3076-78	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	3	
G3079	ECUX1H103KBV	C. CAPACITOR OH 50V 0.01U	1	
G3080	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3081	ECEV1HW010Q	E. CAPACITOR OH 50V 1U	1	
G3082	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3083	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3084-86	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	3	
G3087	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3088	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3089	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3090-91	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	2	
G3092	ECUX1H561JCV	C. CAPACITOR OH 50V 560P	1	
G3093-94	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	2	
G3095	ECUX1H150JCV	C. CAPACITOR OH 50V 15P	1	
G3096	ECUX1H820JCV	C. CAPACITOR OH 50V 82P	1	
G3097	ECEV1GN100Q	E. CAPACITOR OH 16V 10U	1	
G3098-00	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	3	
G3101	ECEV1EN3R3Q	E. CAPACITOR OH 25V 3.3U	1	
G3102	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3103	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3104	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3105	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3107-09	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	3	
G3111-13	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	3	
G3114	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3115-17	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	3	
G3121	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3122	ECEV1HW010Q	E. CAPACITOR OH 50V 1U	1	
G3123	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3131	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3132	ECUX1E223KBV	C. CAPACITOR OH 25V 0.023U	1	
G3133-34	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	2	
G3135	ECUX1H470JCV	C. CAPACITOR OH 50V 47P	1	
G3136	ECUX1H181JCV	C. CAPACITOR OH 50V 180P	1	
G3137	ECUX1H821JV	C. CAPACITOR OH 50V 820P	1	
G3138	ECEV1GV220Q	E. CAPACITOR OH 16V 22U	1	
G3140	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3145	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3146	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3147	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3148	ECUX1E104KBN	C. CAPACITOR OH 25V 0.1U	1	
G3149	ECEVOJV330Q	E. CAPACITOR OH 3V 33U	1	
G3150	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3152-54	ECUX1E104KBN	C. CAPACITOR OH 25V 0.1U	3	
G3155	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	1	
G3157	ECEV1GV100Q	E. CAPACITOR OH 16V 10U	1	
G3203-05	ECUX1H470JCV	C. CAPACITOR OH 50V 47P	3	
G3206-07	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	2	
G3231-32	ECEV1GN100Q	E. CAPACITOR OH 16V 10U	2	
G3287	ECUX1H101JCV	C. CAPACITOR OH 50V 100P	1	
G3297-99	ECUX1E104ZFV	C. CAPACITOR OH 25V 0.1U	3	
D3003-07	MA142K	D10DE	5	
D3011-12	MA142K	D10DE	2	
D3013-16	MA4020	D10DE	4	
I01	74AC04SJ	IC	1	
I02	TC7S04FU	IC	1	
I03	TC7W14FU	IC	1	
I03001	TC7S32FU	IC	1	
I03002	AD790JR	IC	1	
I03003	MC74HC00AF	IC	1	
I03005	MM74HC221S	IC	1	
I03006	MC74HC04AF	IC	1	
I03007	MC74HC125AF	IC	1	
I03008	MC74HC04AF	IC	1	
I03010	NJM062M	IC	1	
I03011	UPD65802G160	IC	1	
I03012	MC74HC125AF	IC	1	
I03013	MC74HC244AF	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC3014	MC74HC125AF	IC	1	
IC3015, 16	MC74HC04AF	IC	2	
IC3017	NJM062M	IC	1	
IC3018	MC74HC04AF	IC	1	
IC3019, 20	NJM062M	IC	2	
IC3021	XC62AP5002P	IC	1	
IC3022	AD790JR	IC	1	
IC3023	MC14053BF	IC	1	
IC3024	NJM062M	IC	1	
IC3025	XC62AP5002P	IC	1	
IC3026	AD790JR	IC	1	
IC3031	TC4W66F	IC	1	
IC3032	74AC04SJ	IC	1	
IC3033	XC62AP5002P	IC	1	
IC3034	EL4583GS	IC	1	
IC3035	TK16031AM1	IC	1	
IC3201	MC74HC04AF	IC	1	
IC3202	MC74HC153F	IC	1	
L1, L2	VLQ0319K101	COIL	100UH	2
L3002	VLQ0163J390	COIL	39UH	1
L3003-09	VLQ0319K101	COIL	100UH	7
L3011, 12	VLQ0319K101	COIL	100UH	2
L3013	VLQ0163J221	COIL	220UH	1
L3014, 15	VLQ0319K101	COIL	100UH	2
L3021	VLQ0163J4R7	COIL	4.7UH	1
P3001	VJP3657	CONNECTOR (MALE)		1
Q3001	2SD1819A	TRANSISTOR		1
Q3002-04	2SB1218A	TRANSISTOR		3
Q3005	2SD1819A	TRANSISTOR		1
Q3011	2SC3930-B	TRANSISTOR		1
Q3012	2SA1532-B	TRANSISTOR		1
Q3013	2SC3938-R	TRANSISTOR		1
Q3014, 15	2SA1532-B	TRANSISTOR		2
Q3016	2SB1218A	TRANSISTOR		1
Q3017	2SD1819A	TRANSISTOR		1
Q3018	2SB1218A	TRANSISTOR		1
Q3023	2SD1819A	TRANSISTOR		1
R1-R3	ERJ3GEYJ100	M. RESISTOR CH 1/10W	10	3
R3001	VRE0071E911	M. RESISTOR CH 1/10W	910	1
R3002	ERJ3GEYJ6332	M. RESISTOR CH 1/10W	3.3K	1
R3003	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3007	ERJ3GEYJ103	M. RESISTOR CH 1/10W	10K	1
R3008	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3013	ERJ3GEYJ222	M. RESISTOR CH 1/10W	2.2K	1
R3014	ERJ3GEYJ224	M. RESISTOR CH 1/10W	220K	1
R3015	ERJ3GEYJ272	M. RESISTOR CH 1/10W	2.7K	1
R3016	ERJ3GEYJ681	M. RESISTOR CH 1/10W	680	1
R3017	ERJ3GEYJ104	M. RESISTOR CH 1/10W	100K	1
R3018	VRE0071E222	M. RESISTOR CH 1/10W	2.2K	1
R3019	ERJ3GEYJ183	M. RESISTOR CH 1/10W	18K	1
R3022	ERJ3GEYJ562	M. RESISTOR CH 1/10W	5.6K	1
R3023, 24	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	2
R3025, 26	VRE0071E432	M. RESISTOR CH 1/10W	4.3K	2
R3027	VRE0071E152	M. RESISTOR CH 1/10W	1.5K	1
R3028	VRE0071E272	M. RESISTOR CH 1/10W	2.7K	1
R3029	ERJ3GEYJ471	M. RESISTOR CH 1/10W	470	1
R3030	ERJ3GEYJ683	M. RESISTOR CH 1/10W	68K	1
R3033, 34	VRE0071E153	M. RESISTOR CH 1/10W	15K	2
R3035	VRE0071E512	M. RESISTOR CH 1/10W	5.1K	1
R3036	ERJ3GEYJ105	M. RESISTOR CH 1/10W	1M	1
R3037	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	1
R3051	ERJ3GEYJ471	M. RESISTOR CH 1/10W	470	1
R3052	ERJ3GEYJ683	M. RESISTOR CH 1/10W	68K	1
R3055, 56	VRE0071E153	M. RESISTOR CH 1/10W	15K	2
R3057	VRE0071E512	M. RESISTOR CH 1/10W	5.1K	1
R3058	ERJ3GEYJ105	M. RESISTOR CH 1/10W	1M	1
R3059	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	1
R3060, 61	VRE0071E103	M. RESISTOR CH 1/10W	10K	2
R3062	ERJ3GEYJ122	M. RESISTOR CH 1/10W	1.2K	1
R3063	VRE0071E103	M. RESISTOR CH 1/10W	10K	1
R3064	VRE0071E133	M. RESISTOR CH 1/10W	13K	1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3066	ERJ3GEYJ473	M. RESISTOR CH 1/10W	47K	1
R3067	ERJ3GEYJ104	M. RESISTOR CH 1/10W	100K	1
R3068	ERJ3GEYJ105	M. RESISTOR CH 1/10W	1M	1
R3071	VRE0071E222	M. RESISTOR CH 1/10W	2.2K	1
R3072	VRE0071E223	M. RESISTOR CH 1/10W	22K	1
R3073	VRE0071E751	M. RESISTOR CH 1/10W	750	1
R3074	VRE0071E472	M. RESISTOR CH 1/10W	4.7K	1
R3075	VRE0071E821	M. RESISTOR CH 1/10W	820	1
R3076	VRE0071E152	M. RESISTOR CH 1/10W	1.5K	1
R3077	ERJ3GEYJ681	M. RESISTOR CH 1/10W	680	1
R3078	ERJ3GEYJ822	M. RESISTOR CH 1/10W	8.2K	1
R3079	ERJ3GEYJ222	M. RESISTOR CH 1/10W	2.2K	1
R3080	ERJ3GEYJ681	M. RESISTOR CH 1/10W	680	1
R3081	ERJ3GEYJ823	M. RESISTOR CH 1/10W	82K	1
R3082	VRE0071E103	M. RESISTOR CH 1/10W	10K	1
R3083	ERJ3GEYJ153	M. RESISTOR CH 1/10W	15K	1
R3084	ERJ3GEYJ105	M. RESISTOR CH 1/10W	1M	1
R3085	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	1
R3086	ERJ3GEYJ472	M. RESISTOR CH 1/10W	4.7K	1
R3087	ERJ3GEYJ183	M. RESISTOR CH 1/10W	18K	1
R3088	ERJ3GEYJ681	M. RESISTOR CH 1/10W	680	1
R3091, 92	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	2
R3094-97	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	4
R3103	VRE0071E153	M. RESISTOR CH 1/10W	15K	1
R3104	VRE0071E392	M. RESISTOR CH 1/10W	3.9K	1
R3105	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3106	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	1
R3107	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3108	ERJ3GEYJ104	M. RESISTOR CH 1/10W	100K	1
R3109	ERJ3GEYJ562	M. RESISTOR CH 1/10W	5.6K	1
R3111, 12	ERJ3GEYJ222	M. RESISTOR CH 1/10W	2.2K	2
R3114	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	1
R3115	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3118	VRE0071E182	M. RESISTOR CH 1/10W	1.8K	1
R3120	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3131	VRE0071E202	M. RESISTOR CH 1/10W	2K	1
R3132	VRE0071E243	M. RESISTOR CH 1/10W	24K	1
R3133	VRE0071E103	M. RESISTOR CH 1/10W	10K	1
R3134	VRE0071E221	M. RESISTOR CH 1/10W	220	1
R3135	ERJ3GEYJ562	M. RESISTOR CH 1/10W	5.6K	1
R3136	ERJ3GEYJ272	M. RESISTOR CH 1/10W	2.7K	1
R3137	ERJ3GEYJ392	M. RESISTOR CH 1/10W	3.9K	1
R3138	ERJ3GEYJ472	M. RESISTOR CH 1/10W	4.7K	1
R3139, 40	ERJ3GEYJ103	M. RESISTOR CH 1/10W	10K	2
R3141	ERJ3GEYJ821	M. RESISTOR CH 1/10W	820	1
R3142	ERJ3GEYJ471	M. RESISTOR CH 1/10W	470	1
R3143	ERJ3GEYJ101	M. RESISTOR CH 1/10W	100	1
R3144	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	1
R3145	ERJ3GEYJ222	M. RESISTOR CH 1/10W	2.2K	1
R3146	ERJ3GEYJ100	M. RESISTOR CH 1/10W	10	1
R3147, 48	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	2
R3150	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3156	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3158	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3162, 63	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	2
R3164	VRE0071E103	M. RESISTOR CH 1/10W	10K	1
R3165	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	1
R3167	ERJ3GEYJ684	M. RESISTOR CH 1/10W	680K	1
R3168	ERJ3GEYJ223	M. RESISTOR CH 1/10W	22K	1
R3171	ERJ3GEYJ823	M. RESISTOR CH 1/10W	82K	1
R3182, 83	ERJ3GEYJ221	M. RESISTOR CH 1/10W	220	2
R3184	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	1
R3194, 95	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	2
R3197	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3198, 99	ERJ3GEYJ102	M. RESISTOR CH 1/10W	1K	2
R3201-03	VRE0071E101	M. RESISTOR CH 1/10W	100	3
R3206	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3212, 13	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	2
R3215	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3218-22	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	5
R3223, 24	ERJ3GEYJ473	M. RESISTOR CH 1/10W	47K	2
R3225	ERJ3GEYJ274	M. RESISTOR CH 1/10W	270K	1
R3230	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1
R3233-39	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	7
R3241	ERJ3GEYOR00	M. RESISTOR CH 1/10W	0	1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3243-48	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 4		C134	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
R3250	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C135	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
R3252-56	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 5		C136	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
R3258	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C137	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
R3260, 61	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 2		C141	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
R3263	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C142	ECST10C336Z	T. CAPACITOR CH 16V 33U	1	
R3266, 67	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 2		C143	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
R3271-74	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 4		C145, 46	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
R3276-79	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 4		C165, 66	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
R3285	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C167	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
R3290-92	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 3		C168	ECUX1H070DCV	C. CAPACITOR CH 50V 7P	1	
R3299	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C169	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
R3309	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C170	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
R3334	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C171	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
R3336-38	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 3		C172	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
R3340	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C173	ECST10C336Z	T. CAPACITOR CH 16V 33U	1	
R3345	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1		C174	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
R3346	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1		C176, 77	ECST10X106Z	T. CAPACITOR CH 16V 10U	2	
R3347	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C202	ECST10X106Z	T. CAPACITOR CH 16V 10U	1	
R3349	ERJ3GEY0R00	M. RESISTOR CH 1/16W	0 1		C206	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
					C207	ECUM1H680JCN	C. CAPACITOR CH 50V 68P	1	
					C208	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
T63001, 02	EYF8CU	TEST POINT	2		C216	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
					C217	ECST10Y225Z	T. CAPACITOR CH 16V 2.2U	1	
TP3001-03	EYF8CU	TEST POINT	3		C218	ECST10X106Z	T. CAPACITOR CH 16V 10U	1	
TP3006-09	EYF8CU	TEST POINT	4		C219	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
TP3011	EYF8CU	TEST POINT	1		C220	ECST10C336Z	T. CAPACITOR CH 16V 33U	1	
TP3013, 14	EYF8CU	TEST POINT	2		C221	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
TP3016	EYF8CU	TEST POINT	1		C223	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
					C224	ECST10Y225Z	T. CAPACITOR CH 16V 2.2U	1	
VR3002	EVW7JGA00814	V. RESISTOR 10K	1		C225	ECEVOJN100Q	E. CAPACITOR CH6.3V 10U	1	
VR3005	EVW7JGA00853	V. RESISTOR 5K	1		C226	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
VR3006, 07	EVW7JGA00823	V. RESISTOR 2K	2		C227	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
VR3011, 12	EVW7JGA00814	V. RESISTOR 10K	2		C228	ECST10C336Z	T. CAPACITOR CH 16V 33U	1	
VR3013-15	VRV0161B102	V. RESISTOR 1K	3		C229	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
VR3201-03	VRV0161B202	V. RESISTOR 2K	3		C230	ECST10Y225Z	T. CAPACITOR CH 16V 2.2U	1	
					C231	ECEVOJN100Q	E. CAPACITOR CH6.3V 10U	1	
X3002	VSX0788	CRYSTAL OSCILLATOR	1		C232	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
X3003	VSX0270	CRYSTAL OSCILLATOR	1		C233	ECST10C336Z	T. CAPACITOR CH 16V 33U	1	
X3004	VSX0689	CRYSTAL OSCILLATOR	1		C236-38	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	3	
X3006	VSX0687	CRYSTAL OSCILLATOR	1		C242	ECUM1C473KBV	C. CAPACITOR CH 16V 0.047U	1	
		MISCELLANEOUS			C244-46	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3	
					C247	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	1	
	XSB2+6	SCREW	2		C263	ECST10C336Z	T. CAPACITOR CH 16V 33U	1	
					C264	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
					C265	ECST10X106Z	T. CAPACITOR CH 16V 10U	1	
■ E12	VEP03D53A	VIDEO IF P.C. BOARD	1 (RTL)		C266	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
					C268	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
					C269, 70	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	2	
C8	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C272	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C12	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C273	ECUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
C13	ECST10X106Z	T. CAPACITOR CH 16V 10U	1		C274	ECUX1H070DCV	C. CAPACITOR CH 50V 7P	1	
C14	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C275	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	1	
C15	ECST10X106Z	T. CAPACITOR CH 16V 10U	1		C276	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C18	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C279	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C19	ECST10X106Z	T. CAPACITOR CH 16V 10U	1		C301-05	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	5	
C26	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C307-09	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3	
C27	ECST10X106Z	T. CAPACITOR CH 16V 10U	1		C403, 04	VCK0152	C. CAPACITOR	2	
C31	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C405	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C33	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C406	ECST10C336Z	T. CAPACITOR CH 16V 33U	1	
C34	ECST10X106Z	T. CAPACITOR CH 16V 10U	1		C407	VCK0151	C. CAPACITOR	1	
C55	ECST10X106Z	T. CAPACITOR CH 16V 10U	1		C408, 09	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
C57	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C410	VCK0151	C. CAPACITOR	1	
C64	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C411-13	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3	
C65	ECST10X106Z	T. CAPACITOR CH 16V 10U	1		C414	VCK0151	C. CAPACITOR	1	
C67	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C415-17	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3	
C69	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1		C602	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C111	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C605, 06	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
C112	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1		C608	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C113	ECUX1H332KBV	C. CAPACITOR CH 50V 3300P	1		C609	ECUX1H181JCV	C. CAPACITOR CH 50V 180P	1	
C114, 15	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		C610	ECST10X106Z	T. CAPACITOR CH 16V 10U	1	
C124, 25	ECST10X106Z	T. CAPACITOR CH 16V 10U	2		C611	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
C130, 31	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		C612	ECUX1H070DCV	C. CAPACITOR CH 50V 7P	1	
C132	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1		C613	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C133	ECUX1H070DCV	C. CAPACITOR CH 50V 7P	1		C614	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C615	ECUX1H270JCV	C. CAPACITOR OH 50V 27P	1		L104	VLQ0319K101	COIL 100UH	1	
C616	ECUX1H470JCV	C. CAPACITOR OH 50V 47P	1		L106	VLQ0426J820	COIL 82UH	1	
C617	ECST1CG336Z	T. CAPACITOR OH 16V 33U	1		L107	VLQ0426J680	COIL 68UH	1	
C618	ECUX1H580JCV	C. CAPACITOR OH 50V 58P	1		L110	VLQ0426J820	COIL 82UH	1	
C620	ECUX1H103KBV	C. CAPACITOR OH 50V 0.01U	1		L111	VLQ0426J680	COIL 68UH	1	
C623	ECUX1H103KBV	C. CAPACITOR OH 50V 0.01U	1		L204-06	VLQ0319K101	COIL 100UH	3	
C624	ECST1CX106Z	T. CAPACITOR OH 16V 10U	1		L262	VLQ0319K101	COIL 100UH	1	
C625	ECUX1H390JCV	C. CAPACITOR OH 50V 39P	1		L264	VLQ0163J221	COIL 220UH	1	
C626	ECUX1H070DCV	C. CAPACITOR OH 50V 7P	1		L300-07	VLP0155	COIL	8	
C627	ECUX1H101JCV	C. CAPACITOR OH 50V 100P	1		L300-19	VLP0155	COIL	11	
C628	ECUX1H220JCV	C. CAPACITOR OH 50V 22P	1		L402	VLQ0464K6R8	COIL 6.8UH	1	
C629	ECUX1H270JCV	C. CAPACITOR OH 50V 27P	1		L602	VLQ0163J390	COIL 39UH	1	
C630	ECUX1H103KBV	C. CAPACITOR OH 50V 0.01U	1		L603	VLQ0319K101	COIL 100UH	1	
C631	ECUX1H470JCV	C. CAPACITOR OH 50V 47P	1		L604	VLQ0426J820	COIL 82UH	1	
C632	ECST1CG336Z	T. CAPACITOR OH 16V 33U	1		L605	VLQ0426J680	COIL 68UH	1	
C633	ECUX1H580JCV	C. CAPACITOR OH 50V 58P	1		L607	VLQ0319K101	COIL 100UH	1	
C635, 36	ECUX1H220JCV	C. CAPACITOR OH 50V 22P	2		L608	VLQ0426J820	COIL 82UH	1	
C637	ECUX1H103KBV	C. CAPACITOR OH 50V 0.01U	1		L609	VLQ0426J680	COIL 68UH	1	
C638	ECUX1H220JCV	C. CAPACITOR OH 50V 22P	1		L611, 12	VLQ0426J470	COIL 47UH	2	
C640	ECUX1H103KBV	C. CAPACITOR OH 50V 0.01U	1		L613	VLQ0426J180	COIL 18UH	1	
C641	ECUX1H151JCV	C. CAPACITOR OH 50V 150P	1		L614	VLQ0426J560	COIL 56UH	1	
C642	ECUX1H581JCV	C. CAPACITOR OH 50V 580P	1		L618	VLQ0319K101	COIL 100UH	1	
C643, 44	ECST1CG336Z	T. CAPACITOR OH 16V 33U	2						
C645, 46	ECUM1E105KBN	C. CAPACITOR OH 16V 1U	2		P1	VJP3657	CONNECTOR (MALE)	1	
C647	ECUM1E473KBN	C. CAPACITOR OH 25V 0.047U	1		P2	VJP3819E100	CONNECTOR (MALE)	1	
C648, 49	ECUX1E104ZV	C. CAPACITOR OH 25V 0.1U	2		P101	VJP33580012	CONNECTOR (MALE)	1	
C650	ECUM1E473KBN	C. CAPACITOR OH 25V 0.047U	1						
C651	ECUX1E104ZV	C. CAPACITOR OH 25V 0.1U	1		Q67	2SB1114	TRANSISTOR	1	
C652	ECST1CG336Z	T. CAPACITOR OH 16V 33U	1		Q91	2SD1280-S	TRANSISTOR	1	
C653	ECUX1E104ZV	C. CAPACITOR OH 25V 0.1U	1		Q92	2SB1218A-R	TRANSISTOR	1	
C654	ECUM1E473KBN	C. CAPACITOR OH 25V 0.047U	1		Q101	2SB1218A-R	TRANSISTOR	1	
C655	ECUX1E104ZV	C. CAPACITOR OH 25V 0.1U	1		Q102	2SD1819A-R	TRANSISTOR	1	
C656	ECST1CG336Z	T. CAPACITOR OH 16V 33U	1		Q103	2SB1218A-R	TRANSISTOR	1	
C657, 58	ECUX1H103KBV	C. CAPACITOR OH 50V 0.01U	2		Q107	2SB1218A-R	TRANSISTOR	1	
C664	ECUX1H150JCV	C. CAPACITOR OH 50V 15P	1		Q108	2SA1532-B	TRANSISTOR	1	
C667	ECUX1E104ZV	C. CAPACITOR OH 25V 0.1U	1		Q109	2SB1218A-R	TRANSISTOR	1	
C668	ECST1CG336Z	T. CAPACITOR OH 16V 33U	1		Q113	2SB1218A-R	TRANSISTOR	1	
C670	ECST1CX106Z	T. CAPACITOR OH 16V 10U	1		Q114, 15	2SA1532-B	TRANSISTOR	2	
C672	ECUX1H220JCV	C. CAPACITOR OH 50V 22P	1		Q116	2SD1819A-R	TRANSISTOR	1	
					Q201	2SD1819A-R	TRANSISTOR	1	
D201	MA142K	DIODE	1		Q601-06	2SD1819A-R	TRANSISTOR	6	
					Q607	2SA1532-B	TRANSISTOR	1	
DL602	VLD0265	DELAY LINE	1		Q608	2SD1819A-R	TRANSISTOR	1	
					Q609	2SA1532-B	TRANSISTOR	1	
FL2-L4	VLF09410223	FILTER	3		Q610-12	2SB1218A-R	TRANSISTOR	3	
FL101	VLF1179	FILTER	1		Q613-15	2SD1819A-R	TRANSISTOR	3	
FL601	VLF1179	FILTER	1		Q616	2SB1218A-R	TRANSISTOR	1	
FL602	VLF1337	FILTER	1						
					QR88	UN5213	TRANSISTOR-RESISTOR	1	
IC5	XC62DN5002P	IC	1		QR301	UN5213	TRANSISTOR-RESISTOR	1	
IC6	XC62AP5002P	IC	1						
IC8	XC62DN5002P	IC	1		R14	ERJ3GEY0R00	M. RESISTOR OH 1/10W 0	1	
IC9	XC62AP3002P	IC	1		R21	ERJ3GEY0R00	M. RESISTOR OH 1/10W 0	1	
IC101, 02	TC4W53FU	IC	2		R44	ERJ3GEY0R00	M. RESISTOR OH 1/10W 0	1	
IC103	AD817AR	IC	1		R83	ERJ3GEYJ473	M. RESISTOR OH 1/10W 47K	1	
IC104	TC4W53FU	IC	1		R84	ERJ3GEY0152	M. RESISTOR OH 1/10W 1.5K	1	
IC105	AD826AR	IC	1		R91	ERJ3GEYJ473	M. RESISTOR OH 1/10W 47K	1	
IC201	EL4583CS	IC	1		R92	ERJ3GEY0332	M. RESISTOR OH 1/10W 3.3K	1	
IC202	TC7W14FU	IC	1		R99	ERJ3GEYJ473	M. RESISTOR OH 1/10W 47K	1	
IC207, 08	CXD1176Q	IC	2		R102	ERJ3GEY0R00	M. RESISTOR OH 1/10W 0	1	
IC209	XC62AP5002P	IC	1		R103	ERJ3GEY0472	M. RESISTOR OH 1/10W 4.7K	1	
IC212	CXD1176Q	IC	1		R105	ERJ3GEYJ102	M. RESISTOR OH 1/10W 1K	1	
IC301	T163G26-1022	IC	1		R107	ERJ3GEYJ222	M. RESISTOR OH 1/10W 2.2K	1	
IC304	TC7SH04FU	IC	1		R108, 09	ERJ3GEYJ102	M. RESISTOR OH 1/10W 1K	2	
IC305	TCVHC74FS	IC	1		R110	ERJ3GEY0R00	M. RESISTOR OH 1/10W 0	1	
IC306	TC4W53FU	IC	1		R111	ERJ3GEYJ681	M. RESISTOR OH 1/10W 680	1	
IC402	MN657021F	IC	1		R112	ERJ3GEY0R00	M. RESISTOR OH 1/10W 0	1	
IC801	TC7SH08FU	IC	1		R113	ERJ3GEYJ222	M. RESISTOR OH 1/10W 2.2K	1	
IC802	AD817AR	IC	1		R114	ERJ3GEY6882	M. RESISTOR OH 1/10W 6.8K	1	
IC803	AD826AR	IC	1		R115	ERJ3GEYJ122	M. RESISTOR OH 1/10W 1.2K	1	
IC804	M51272FP	IC	1		R116	ERJ3GEY0472	M. RESISTOR OH 1/10W 4.7K	1	
IC806-10	TC7S08FU	IC	3		R117	ERJ3GEY0R00	M. RESISTOR OH 1/10W 0	1	
IC811	XC62AP5002P	IC	1		R120	ERJ3GEYJ103	M. RESISTOR OH 1/10W 10K	1	
					R121-23	VRE0071E750	M. RESISTOR OH 1/10W 75	3	
L102	VLQ0426J3R3	COIL 3.3UH	1		R125	ERJ3GEYJ222	M. RESISTOR OH 1/10W 2.2K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R126	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		R412	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R127, 28	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	2		R413	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R129	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	1		R414-16	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	3	
R130	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1		R417	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R131, 32	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2		R418	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R133	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1		R426, 27	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R134	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1		R505	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R136	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R601	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R137	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1		R603	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R138	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1		R605	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R147	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1		R606	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R149	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		R607	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R150, 51	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	2		R608	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R152	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	1		R609	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R153	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1		R610	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R154, 55	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2		R611	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R156	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1		R612	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R157	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1		R614, 15	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R160	ERJ3GEYG682	M. RESISTOR CH 1/16W 6.8K	1		R616	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R163	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		R619	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R166	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		R620	VRT014116250	THERMISTOR	1	
R179	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R622	ERJ3GEYJ181	M. RESISTOR CH 1/16W 180	1	
R184	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1		R623	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R185, 86	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	2		R624	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R187	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		R625	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	1	
R188	ERJ3GEYG682	M. RESISTOR CH 1/16W 6.8K	1		R626	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R203	ERJ3GEYJ823	M. RESISTOR CH 1/16W 82K	1		R627	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R204	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1		R628, 29	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	2	
R205	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1		R631	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R206	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1		R632	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R208	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		R633, 34	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R209	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R635, 36	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	2	
R211	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R637	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R213	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1		R638	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R215	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R639, 40	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R216	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1		R641	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R217	ERJ3GEYG682	M. RESISTOR CH 1/16W 6.8K	1		R642	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R218	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1		R645	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R219	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		R646, 47	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R223	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1		R648, 49	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	2	
R225	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1		R650	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R226, 27	ERJ6GEYJ335	M. RESISTOR CH 1/10W 3.3K	2		R651	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R228	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1		R652, 53	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R229	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1		R654	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R231	ERJ3GEYG682	M. RESISTOR CH 1/16W 6.8K	1		R655	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R232	VRE006807103	M. RESISTOR CH 1/10W 10K	1		R656	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
R234, 35	ERJ6GEYJ335	M. RESISTOR CH 1/10W 3.3K	2		R658	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
R236	ERJ3GEYJ750	M. RESISTOR CH 1/16W 75	1		R660	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R237	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1		R661	VRE0071E472	M. RESISTOR CH 1/16W 4.7K	1	
R239	ERJ3GEYG682	M. RESISTOR CH 1/16W 6.8K	1		R663	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
R241	VRE006807103	M. RESISTOR CH 1/10W 10K	1		R665	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R242, 43	ERJ6GEYJ335	M. RESISTOR CH 1/10W 3.3K	2		R666	VRE0071E471	M. RESISTOR CH 1/16W 470	1	
R244	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R667	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R268	ERJ3GEYJ684	M. RESISTOR CH 1/16W 680K	1		R668, 69	VRE0071E241	M. RESISTOR CH 1/16W 240	2	
R272	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1		R671	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R273	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1		R675, 76	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R303	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R677	VRE0071E273	M. RESISTOR CH 1/16W 27K	1	
R307-09	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3		R678, 79	VRE0071E183	M. RESISTOR CH 1/16W 18K	2	
R313-15	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	3		R680	VRE0071E273	M. RESISTOR CH 1/16W 27K	1	
R316	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R681	VRE0071E221	M. RESISTOR CH 1/16W 220	1	
R320, 21	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2		R682	VRE0071E102	M. RESISTOR CH 1/16W 1K	1	
R323	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R683	VRE0071E121	M. RESISTOR CH 1/16W 120	1	
R324, 25	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2		R684	VRE0071E221	M. RESISTOR CH 1/16W 220	1	
R326, 27	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2		R685	VRE0071E332	M. RESISTOR CH 1/16W 3.3K	1	
R328	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		R686	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R329	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1		R687	ERJ3GEYG682	M. RESISTOR CH 1/16W 6.8K	1	
R330	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R688	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R332	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R689	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R334	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R690	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1K	1	
R335	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1		R693	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	1	
R336	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R694	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R401-08	EXB24V151JX	COMBI. R-R	150	8	R695	VRT014182150	THERMISTOR	1	
R409	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1		R696, 97	VRE0071E132	M. RESISTOR CH 1/16W 1.3K	2	
R410	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1		R698, 99	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R411	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1		R700	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R701	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R703	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R706, 07	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R801, 02	VRE0034E181	M. RESISTOR CH 1/10W 180	2	
T61	EYF6CU	TEST POINT	1	
TP207, 08	EYF6CU	TEST POINT	2	
TP212	EYF6CU	TEST POINT	1	
TP301-07	EYF6CU	TEST POINT	7	
TP601	EYF6CU	TEST POINT	1	
VC601	VCV0047	TRIMMER	1	
VR104	EVM7JGA00B23	V. RESISTOR 2K	1	
VR107, 08	EVM7JGA00B23	V. RESISTOR 2K	2	
VR111, 12	EVM7JGA00B23	V. RESISTOR 2K	2	
VR201	EVM7JGA00B14	V. RESISTOR 10K	1	
VR602	EVM7JGA00B53	V. RESISTOR 5K	1	
VR603	EVM7JGA00B13	V. RESISTOR 1K	1	
VR604	EVM7JGA00B22	V. RESISTOR 200	1	
VR605	EVM7JGA00B13	V. RESISTOR 1K	1	
VR607	EVM7JGA00B14	V. RESISTOR 10K	1	
VR608	EVM7JGA00B53	V. RESISTOR 5K	1	
VR609, 10	EVM7JGA00B23	V. RESISTOR 2K	2	
		MISCELLANEOUS		
	XSB2+6	SCREW	2	
■ E13	VEP03D84A	VIDEO I/F SUB P.C. BOARD	1	(RTL)
C2, C3	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
C6	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C20	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
C21-25	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	5	
C28	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
C203	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C204	ECST10C336Z	T. CAPACITOR CH 16V 33U	1	
C209-11	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3	
C212	ECUM1C474KBM	C. CAPACITOR CH 16V 0.47U	1	
C213	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	1	
C234, 35	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
C243	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C250	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	1	
C251	ECST10X106Z	T. CAPACITOR CH 16V 10U	1	
C252	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C253	ECST10X106Z	T. CAPACITOR CH 16V 10U	1	
C254	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C280	ECST10C336Z	T. CAPACITOR CH 16V 33U	1	
D203, 04	1A704	DIODE	2	
IC1	T180G41-1437	IC	1	
IC3	C825123-5106	IC	1	
IC4	GY7C19920ZC	IC	1	
IC7	TC7S04FU	IC	1	
IC10	GY7C19920ZC	IC	1	
IC203	TCVHC04FS	IC	1	
IC205	TC7W125FU	IC	1	
IC206	N.M062M	IC	1	
IC211	TC7SH00FU	IC	1	
IC213	XC62AP5002P	IC	1	
L201-03	VL00319K101	COIL 100UH	3	
L207	VL00155	COIL	1	
L208	VL00319K101	COIL 100UH	1	
P3	VJS819E100	CONNECTOR (FEMALE)	1	
R7, R8	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R9	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R10	VRE0071E111	M. RESISTOR CH 1/16W 110	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R11	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R17	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R26-33	EXB24V151JX	COMB1. R-R 150	8	
R35-42	EXB24V151JX	COMB1. R-R 150	8	
R46, 47	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R48, 49	ERJ3GEYJ151	M. RESISTOR CH 1/16W 150	2	
R50-52	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
R207	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	1	
R220	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R221	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R251	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R258	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R260	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R274	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R276	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R278	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R280	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R282, 83	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R285	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R286	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R287	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R288	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
TP201-03	EYF6CU	TEST POINT	3	
X201	VSX0877	CRYSTAL OSCILLATOR	1	
■ E14	VEP06A22C	VEP06A22C	1	(RTL)
C6001	ECEV0JV330Q	E. CAPACITOR CH6.3V 33U	1	
C6002	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	1	
C6003	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1	
C6004, 05	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	2	
C6006, 07	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	2	
C6008, 09	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	2	
C6010	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C6012-19	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	8	
C6021, 22	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	2	
C6023	ECUX1H120JCV	C. CAPACITOR CH 50V 12P	1	
C6101	ECEV0JV470Q	E. CAPACITOR CH6.3V 47U	1	
C6102	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	1	
C6103	ECEV0JV470Q	E. CAPACITOR CH6.3V 47U	1	
C6104-06	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	3	
C6201-09	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	9	
C6210	ECEV0JV470Q	E. CAPACITOR CH6.3V 47U	1	
C6211	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	1	
C6213-17	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	5	
C6801, 02	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	2	
C6803, 04	ECUX1H100DCV	C. CAPACITOR CH 50V 10P	2	
C6805-07	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	3	
C6809	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
C6810	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
C6811	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	1	
C6812	ECEV0JV470Q	E. CAPACITOR CH6.3V 47U	1	
C6813, 14	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	2	
C6815	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	1	
C6816	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1	
C6817	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1	
C6818	ECEV1GN100Q	E. CAPACITOR CH 16V 10U	1	
C6819	ECUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	1	
C6820	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C6821, 22	ECEV1GN100Q	E. CAPACITOR CH 16V 10U	2	
D6001	1A151K	DIODE	1	
D6002-04	1A728	DIODE	3	
D6007-09	1A728	DIODE	3	
D6021	1A151K	DIODE	1	
D6801	1A143	DIODE	1	
D6802	1A8024	DIODE	1	
IC6001	IC3770234AFP	IC	1	
IC6002	1N13821-S	IC	1	
IC6003	TC7W04F	IC	1	

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Ref. No.	Part No.	Part Name & Description	Pos	Remarks
IC8004	TG7W32F	IC	1	
IC8005	PG74HC75T	IC	1	
IC8006	VS12482B	IC	1	
IC8006	VS12482B	IC	1	
IC8007	TG7W00F	IC	1	
IC8008	MG74HC138AF	IC	1	
IC8009	UPD6456T811Y	IC	1	
IC8010	TG7W32F	IC	1	
IC8011, 12	TG74ACT541F	IC	2	
IC8013	TG7332F	IC	1	
IC8101, 02	TG74ACT541F	IC	2	
IC8201	MB893638PF	IC	1	
IC8202	UPC393G2	IC	1	
IC8801	MN51040VP1	IC	1	
IC8802	UPC393G2	IC	1	
IC8803	NJM4558M	IC	1	
IF8006	VJF1047	IC SOCKET	1	
IS8006	VJS3427X032	CONNECTOR (FEMALE)	1	
L8001	VLQ0319K100	COIL 10UH	1	
L8002	VLQ0163J270	COIL 27UH	1	
L8101	VLQ0319K101	COIL 100UH	1	
L8102, 03	VLQ0163J470	COIL 47UH	2	
L8201	VLQ0319K101	COIL 100UH	1	
L8801	VLQ0163J470	COIL 47UH	1	
L8802	VLQ0319K101	COIL 100UH	1	
P8001	VJP3657	CONNECTOR (MALE)	1	
Q8801	2SD1819A-R	TRANSISTOR	1	
QR8001	UN5213	TRANSISTOR-RESISTOR	1	
QR8003	UN5211	TRANSISTOR-RESISTOR	1	
QR8004, 05	UN5213	TRANSISTOR-RESISTOR	2	
QR8201-04	UN5114	TRANSISTOR-RESISTOR	4	
QR8206	UN5213	TRANSISTOR-RESISTOR	1	
QR8207	UN5114	TRANSISTOR-RESISTOR	1	
QR8208, 09	UN5213	TRANSISTOR-RESISTOR	2	
R8001	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R8002	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	1	
R8003	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R8004	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R8005	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R8006	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R8007	VRE0034E473	M. RESISTOR CH 1/10W 47K	1	
R8008	VRE0034E153	M. RESISTOR CH 1/10W 15K	1	
R8009	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R8010	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R8011	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R8012	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R8013	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R8014	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R8015	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R8016, 17	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R8019, 20	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	2	
R8021	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R8022	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R8023	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R8025	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R8026	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R8029	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R8030-36	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	7	
R8037-39	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	3	
R8040-44	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	5	
R8045, 46	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R8047, 48	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R8049	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R8050	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R8051, 52	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R8053	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
R8101-29	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	29	
R8201-05	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	5	

Ref. No.	Part No.	Part Name & Description	Pos	Remarks
R8206-12	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	7	
R8213-15	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	3	
R8216	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R8217	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R8218, 19	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	2	
R8220-24	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	5	
R8225	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R8226-30	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	5	
R8231, 32	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	2	
R8233-36	ERJ6GEYG271	M. RESISTOR CH 1/10W 270	4	
R8237	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R8238-41	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	4	
R8243, 44	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R8246	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R8801	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R8803, 04	ERJ3GEYJ224	M. RESISTOR CH 1/16W 220K	2	
R8805	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R8806	ERJ3GEYJ123	M. RESISTOR CH 1/16W 12K	1	
R8807	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R8808	ERJ3GEYJ123	M. RESISTOR CH 1/16W 12K	1	
R8809	VRE0034E682	M. RESISTOR CH 1/10W 6.8K	1	
R8810	VRE0034E912	M. RESISTOR CH 1/10W 9.1K	1	
R8811	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R8812, 13	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	2	
R8814	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R8816	ERJ3GEYJ394	M. RESISTOR CH 1/10W 390K	1	
R8817	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R8818	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R8819	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	1	
R8820	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R8821	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R8822	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
R8823	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R8824	ERJ3GEYG682	M. RESISTOR CH 1/16W 6.8K	1	
R8826	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
R8827, 28	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R8829	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R8839	VRE0034E392	M. RESISTOR CH 1/10W 3.9K	1	
R8840	VRE0034E102	M. RESISTOR CH 1/10W 1K	1	
R8845	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
SW8001	VSS0342	SWITCH	1	
T88001	EYF8CU	TEST POINT	1	
TP8001, 02	EYF8CU	TEST POINT	2	
VC8001	VCV0049	TRIMMER	1	
X8001	VSX0485	CRYSTAL OSCILLATOR	1	
X8801	VSX0498	CRYSTAL OSCILLATOR	1	
X8802	VSX0615	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	XSB2-6	SCREW	2	
E15	VEP02437B	SERVO P. C. BOARD	1 (RTL)	
G20	ECA1EFQ121	E. CAPACITOR 25V 120U	1	
G24	ECA1EFQ121	E. CAPACITOR 25V 120U	1	
G45	VCK0152	G. CAPACITOR	1	
G53	ECA1EFQ121	E. CAPACITOR 25V 120U	1	
G55	ECA1EFQ121	E. CAPACITOR 25V 120U	1	
G60	ECA1EFQ121	E. CAPACITOR 25V 120U	1	
G64, 65	ECUM1G105KBM	G. CAPACITOR CH 16V 1U	2	
G66	ECUX1H101JCV	G. CAPACITOR CH 50V 100P	1	
G67	ECUX1H471JCV	G. CAPACITOR CH 50V 470P	1	
G69	ECUX1H471JCV	G. CAPACITOR CH 50V 470P	1	
G78	ECUM1G105KBM	G. CAPACITOR CH 16V 1U	1	
G100, 01	EOEVOJV330Q	E. CAPACITOR CH8.3V 33U	2	
G103	ECUX1E104KBN	G. CAPACITOR CH 25V 0.1U	1	
G107	ECUM1G105KBM	G. CAPACITOR CH 16V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C108	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		C401-04	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	4	
C109	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		C407-10	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	4	
C110	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		C411-13	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3	
C111	ECUX1H122KBV	C. CAPACITOR CH 50V 1200P	1		C414-16	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	3	
C113, 14	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	2		C418	ECEV1HV3R3Q	E. CAPACITOR CH 50V 3.3U	1	
C115-17	ECEV1EV330Q	E. CAPACITOR CH 25V 33U	3		C419	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C119-21	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	3		C420	ECEV1HV3R3Q	E. CAPACITOR CH 50V 3.3U	1	
C123	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		C422-25	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	4	
C124	ECUX1H332KBV	C. CAPACITOR CH 50V 3300P	1		C430	VOK0152	C. CAPACITOR	1	
C125	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		C432	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C126	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		C433	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C127	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C434	ECEV1HV3R3Q	E. CAPACITOR CH 50V 3.3U	1	
C128	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		C435	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1	
C129	ECUX1H182KBV	C. CAPACITOR CH 50V 1800P	1		C503	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	1	
C130	ECUX1H100DCV	C. CAPACITOR CH 50V 10P	1		C504	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C133	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		C506	VOK0152	C. CAPACITOR	1	
C134	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1		C507	ECEV1HV3R3Q	E. CAPACITOR CH 50V 3.3U	1	
C135	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		C508-11	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	4	
C137, 38	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		C514	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C139	ECEV1EV220Q	E. CAPACITOR CH 25V 22U	1		C515	ECEV1HV3R3Q	E. CAPACITOR CH 50V 3.3U	1	
C140, 41	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	2		C517	ECEV1HV3R3Q	E. CAPACITOR CH 50V 3.3U	1	
C143	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1		G702	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C144, 45	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		G703	ECEV1EV4R7Q	E. CAPACITOR CH 25V 4.7U	1	
C204	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		G704	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C206, 07	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		G705	ECEV1EV330Q	E. CAPACITOR CH 25V 33U	1	
C208	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		G706, 07	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	2	
C209	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C801	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C213, 14	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	2		C802	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1	
C215	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		C803	ECA1GM332	E. CAPACITOR 16V 3300U	1	
C222	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1		C804-08	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	5	
C225	ECUM1C105KBM	E. CAPACITOR CH 16V 1U	1		C809	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C227	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1		C810, 11	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	2	
C228-30	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	3		C812, 13	ECA1GM332	E. CAPACITOR 16V 3300U	2	
C231-33	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3		C814	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C234-36	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	3		C817	ECEV1EV4R7Q	E. CAPACITOR CH 25V 4.7U	1	
C237	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1		C903-05	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	3	
C238	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		G906	ECUX1H100DCV	C. CAPACITOR CH 50V 10P	1	
C239	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1						
C243	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1		D10	MA728	DIODE	1	
C244	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		D11, 12	MA736	DIODE	2	
C245, 46	ECUX1H332KBV	C. CAPACITOR CH 50V 3300P	2		D13	MA728	DIODE	1	
C247	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		D100	MA142K	DIODE	1	
C250, 51	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		D101, 02	MA143	DIODE	2	
C252	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1		D103	MA736	DIODE	1	
C253-56	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	4		D200, 01	MA143	DIODE	2	
C257, 58	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	2		D301	MA728	DIODE	1	
C267, 68	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	2		D302	MA736	DIODE	1	
C269	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		D303	MA728	DIODE	1	
C270	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1		D304	MA736	DIODE	1	
C304, 05	ECA1EFQ121	E. CAPACITOR 25V 120U	2		D401	MA736	DIODE	1	
C307, 08	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	2		D402-05	MA143	DIODE	4	
C309	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		D406	MA736	DIODE	1	
C310	VCC0037F432	C. CAPACITOR 432P	1		D501	MA141WK	DIODE	1	
C311	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		D502-04	MA142WA	DIODE	3	
C312	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		D505	MA142WK	DIODE	1	
C318, 19	ECA1EFQ121	E. CAPACITOR 25V 120U	2		D701	MA143	DIODE	1	
C321	ECUM1H333KBN	C. CAPACITOR CH 50V 0.033U	1		D702	MA3062N	DIODE	1	
C322	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		D703	MA736	DIODE	1	
C323	ECEV1EV4R7Q	E. CAPACITOR CH 25V 4.7U	1		D704	MA3056-L	DIODE	1	
C324, 25	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	2		D801-03	MA141WK	DIODE	3	
C326	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		D807	MA141WK	DIODE	1	
C327-29	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3		D811, 12	MA141WK	DIODE	2	
C330	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		D813	21D904	DIODE	1	
C331	ECUM1H333KBN	C. CAPACITOR CH 50V 0.033U	1		D814-16	MA141WK	DIODE	3	
C332	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		D817-28	MA736	DIODE	12	
C333	ECEV1EV4R7Q	E. CAPACITOR CH 25V 4.7U	1		D829	NS003A04	DIODE	1	
C334, 35	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	2		D830	MA8051-H	DIODE	1	
C336	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		D831, 32	NS003A04	DIODE	2	
C337-39	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3		D833	MA142WK	DIODE	1	
C340-42	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	3						
C343-46	ECEV1EV4R7Q	E. CAPACITOR CH 25V 4.7U	4		IC6	TA75W01FU	IC	1	
C349	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		IC7	TA75W393FU	IC	1	
C351	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		IC9	TA75W393FU	IC	1	
C353, 54	ECUM1H333KBN	C. CAPACITOR CH 50V 0.033U	2		IC100	MN6755486H7H	IC	1	
C357-59	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	3		IC101	SG371025AVFU	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC103	UPC4556G2	IC	1		Q820	2SB1219A-R	TRANSISTOR	1	
IC104	MM13821-S	IC	1		Q821, 22	2SD1624-S	TRANSISTOR	2	
IC110	XC62AP3002P	IC	1		Q823	2SB1219A-R	TRANSISTOR	1	
IC200	TB8519F	IC	1		Q825	2SD1819A-R	TRANSISTOR	1	
IC201, 02	UN224	TRANSISTOR-RESISTOR	2		Q826, 27	2SB1073-R	TRANSISTOR	2	
IC203	TA75W393FU	IC	1		Q829	2SD1819A-R	TRANSISTOR	1	
IC204	TA75W01FU	IC	1		Q830	2SB1219A-R	TRANSISTOR	1	
IC205	TB8519F	IC	1		Q831, 32	2SD1624-S	TRANSISTOR	2	
IC301	TL1451CDB	IC	1		Q833	2SB1219A-R	TRANSISTOR	1	
IC302, 03	AN3841SR	IC	2		Q835	2SD1819A-R	TRANSISTOR	1	
IC401, 02	TA75W393FU	IC	2		Q836, 37	2SB1073-R	TRANSISTOR	2	
IC403	TA75W01FU	IC	1		Q839	2SD1819A-R	TRANSISTOR	1	
IC404, 05	TC7W74FU	IC	2		Q840	2SB1219A-R	TRANSISTOR	1	
IC406, 07	UPC4556G2	IC	2		Q841, 42	2SD1624-S	TRANSISTOR	2	
IC409, 10	TA75W01FU	IC	2		Q843	2SB1219A-R	TRANSISTOR	1	
IC501	MM675548H7G	IC	1		Q906	2SD1819A-R	TRANSISTOR	1	
IC502	TC7W04FU	IC	1		Q908	2SD1819A-R	TRANSISTOR	1	
IC503	TA75W393FU	IC	1		Q914	2SD1819A-R	TRANSISTOR	1	
IC701	TA75W393FU	IC	1		Q918	2SD1819A-R	TRANSISTOR	1	
IC702	BA6219BFP-Y	IC	1		Q922	2SD1819A-R	TRANSISTOR	1	
IC801	MC14538BF	IC	1						
IC802	NJM2904M	IC	1		QR2	UN5213	TRANSISTOR-RESISTOR	1	
IC803	MC14538BF	IC	1		QR5	UN5213	TRANSISTOR-RESISTOR	1	
IC804	MC74HC11F	IC	1		QR101, 02	UN5213	TRANSISTOR-RESISTOR	2	
IC805, 06	TC7W04FU	IC	2		QR106	UN5213	TRANSISTOR-RESISTOR	1	
					QR149, 50	UN5213	TRANSISTOR-RESISTOR	2	
L1	VLQ0407120M	COIL 12UH	1		QR305	UN5113	TRANSISTOR-RESISTOR	1	
L2	VLQ0129	COIL 300UH	1		QR306	UN5213	TRANSISTOR-RESISTOR	1	
L4	VLQ0407151K	COIL 150UH	1		QR501	UN5213	TRANSISTOR-RESISTOR	1	
L101	VLQ0319K101	COIL 100UH	1		QR504	UN5213	TRANSISTOR-RESISTOR	1	
L102-04	VLQ0319K100	COIL 10UH	3		QR701, 02	UN5114	TRANSISTOR-RESISTOR	2	
L200	VLQ0319K100	COIL 10UH	1		QR703, 04	UN5214	TRANSISTOR-RESISTOR	2	
L301	VLQ0407120M	COIL 12UH	1		QR801	UN5213	TRANSISTOR-RESISTOR	1	
L302, 03	VLQ0407151K	COIL 150UH	2		QR804	UN5214	TRANSISTOR-RESISTOR	1	
L501	VLQ0319K100	COIL 10UH	1		QR809, 10	UN5214	TRANSISTOR-RESISTOR	2	
L701	VLQ0319K101	COIL 100UH	1		QR813	UN5214	TRANSISTOR-RESISTOR	1	
					QR814	UN5114	TRANSISTOR-RESISTOR	1	
P800	VJP3172D003	CONNECTOR (MALE)	1		QR818	UN5114	TRANSISTOR-RESISTOR	1	
P801	VJP3172D002	CONNECTOR (MALE)	1		QR824	UN5114	TRANSISTOR-RESISTOR	1	
P802	VJP3172D004	CONNECTOR (MALE)	1		QR828	UN5114	TRANSISTOR-RESISTOR	1	
P803	VJP3172D002	CONNECTOR (MALE)	1		QR834	UN5114	TRANSISTOR-RESISTOR	1	
P804	VJP3172D003	CONNECTOR (MALE)	1		QR838	UN5114	TRANSISTOR-RESISTOR	1	
P805	VJP3518B002	CONNECTOR (MALE)	1		QR844-46	UN5214	TRANSISTOR-RESISTOR	3	
P806	VJP3172D003	CONNECTOR (MALE)	1		QR905	UN5214	TRANSISTOR-RESISTOR	1	
P807	VJS3801B010	CONNECTOR (FEMALE)	1		QR907	UN5214	TRANSISTOR-RESISTOR	1	
P808	VJP3518B002	CONNECTOR (MALE)	1		QR913	UN5214	TRANSISTOR-RESISTOR	1	
P809	VJP3172D002	CONNECTOR (MALE)	1		QR915	UN5214	TRANSISTOR-RESISTOR	1	
P810	VJP3518B003	CONNECTOR (MALE)	1		QR917	UN5214	TRANSISTOR-RESISTOR	1	
P811	VJP3518B002	CONNECTOR (MALE)	1		QR919-21	UN5214	TRANSISTOR-RESISTOR	3	
P812	VJP3172D004	CONNECTOR (MALE)	1						
P813	VJS3408B015	CONNECTOR (FEMALE)	1		R19	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
P814, 15	VJS3813C017	CONNECTOR (FEMALE)	2		R20	ERJ8G0YJ881	M. RESISTOR CH 1/8W 880	1	
P816	VJS3408B019	CONNECTOR (FEMALE)	1		R22	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
P817	VJP1232T	CONNECTOR (MALE) 5P	1		R23	ERJ3GEYJ393	M. RESISTOR CH 1/10W 39K	1	
P818	VJP3125B002	CONNECTOR (MALE)	1		R24, 25	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
P819	VJP3809E060	CONNECTOR (MALE)	1		R26	ERJ3GEYJ394	M. RESISTOR CH 1/10W 390K	1	
P820	VJP3358C022	CONNECTOR (MALE)	1		R27	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
					R28	ERJ3GEYJ123	M. RESISTOR CH 1/10W 12K	1	
Q2	2SD1820-R	TRANSISTOR	1		R29	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
Q3, 04	2SB1073-R	TRANSISTOR	2		R30	ERJ3GEYJ394	M. RESISTOR CH 1/10W 390K	1	
Q5-07	2SD1820-R	TRANSISTOR	3		R31	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
Q100, 01	2SD1820-R	TRANSISTOR	2		R32	ERJ3GEYJ123	M. RESISTOR CH 1/10W 12K	1	
Q103, 04	2SD1820-R	TRANSISTOR	2		R33	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
Q105	2SB1219A-R	TRANSISTOR	1		R34	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
Q106	2SD1819A-R	TRANSISTOR	1		R36	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
Q301, 02	2SB1073-R	TRANSISTOR	2		R37	ERJ3GEYJ393	M. RESISTOR CH 1/10W 39K	1	
Q401	2SB1219A-R	TRANSISTOR	1		R38	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
Q502, 03	2SD1819A-R	TRANSISTOR	2		R42, 43	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	2	
Q702	2SB1073-R	TRANSISTOR	1		R44	ERJ3GEYJ564	M. RESISTOR CH 1/10W 560K	1	
Q703	2SD1624-S	TRANSISTOR	1		R45	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
Q811	2SB836A-Q	TRANSISTOR	1		R46	ERJ3GEYJ563	M. RESISTOR CH 1/10W 56K	1	
Q812	2SD1819A-R	TRANSISTOR	1		R47	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
Q815	2SD1819A-R	TRANSISTOR	1		R49, 50	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
Q816, 17	2SB1073-R	TRANSISTOR	2		R51	ERJ3GEYJ334	M. RESISTOR CH 1/10W 330K	1	
Q819	2SD1819A-R	TRANSISTOR	1		R52	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R54	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R63	ERJ8GCYJ681	M. RESISTOR CH 1/8W 680	1	
R64	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R77	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R78	ERJ3GEYJ823	M. RESISTOR CH 1/10W 82K	1	
R84	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R93	ERJ3GEYJ562	M. RESISTOR CH 1/10W 5.6K	1	
R101	ERJ8GCYR000	M. RESISTOR CH 1/8W 0	1	
R102, 03	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	2	
R104-07	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	4	
R111	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R112	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R118-26	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	9	
R128	ERJ3GEYJ682	M. RESISTOR CH 1/10W 6.8K	1	
R129	ERJ3GEYR000	M. RESISTOR CH 1/10W 0	1	
R130	ERJ3GEYJ683	M. RESISTOR CH 1/10W 68K	1	
R131	ERJ3GEYJ334	M. RESISTOR CH 1/10W 330K	1	
R132	ERJ3GEYJ823	M. RESISTOR CH 1/10W 82K	1	
R133	ERJ3GEYJ682	M. RESISTOR CH 1/10W 8.2K	1	
R134	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R135	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R136	ERJ3GEYJ563	M. RESISTOR CH 1/10W 56K	1	
R137	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R138	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	1	
R139	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R140	ERJ3GEYJ562	M. RESISTOR CH 1/10W 5.6K	1	
R141	ERJ3GEYJ330	M. RESISTOR CH 1/10W 33	1	
R142	ERJ3GEYJ562	M. RESISTOR CH 1/10W 5.6K	1	
R143	ERJ8GCYJ271	M. RESISTOR CH 1/8W 270	1	
R144	ERJ3GEYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R145	ERJ3GEYJ221	M. RESISTOR CH 1/10W 220	1	
R146	ERJ3GEYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R148	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R149	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R150	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R151	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R153	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R154	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R155	ERJ3GEYJ682	M. RESISTOR CH 1/10W 6.8K	1	
R156, 57	ERJ3GEYR000	M. RESISTOR CH 1/10W 0	2	
R158-66	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	9	
R167	ERJ3GEYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R172	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R174, 75	ERJ3GEYR000	M. RESISTOR CH 1/10W 0	2	
R178	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	1	
R179, 80	VRE0034E223	M. RESISTOR CH 1/10W 22K	2	
R181	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R182	ERJ3GEYJ122	M. RESISTOR CH 1/10W 1.2K	1	
R183	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	1	
R185	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R186, 87	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	2	
R189	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R190	ERJ3GEYJ273	M. RESISTOR CH 1/10W 27K	1	
R191	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R192-95	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	4	
R196	ERJ3GEYR000	M. RESISTOR CH 1/10W 0	1	
R204, 05	ERJ8GCYJ1R0	M. RESISTOR CH 1/8W 1	2	
R206	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R207	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R209	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R210	ERJ8GCYJ1R0	M. RESISTOR CH 1/8W 1	1	
R211	ERJ3GEYJ393	M. RESISTOR CH 1/10W 39K	1	
R212	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R213	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R214, 15	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R216	ERJ3GEYJ184	M. RESISTOR CH 1/10W 180K	1	
R217	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R220	ERJ3GEYJ821	M. RESISTOR CH 1/10W 820	1	
R226, 27	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	2	
R229	ERJ3GEYJ681	M. RESISTOR CH 1/10W 680	1	
R233, 34	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	2	
R235	ERJ8GCYJ1R0	M. RESISTOR CH 1/8W 1	1	
R236	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R238	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R239	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R240	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R241	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R242	ERJ3GEYJ184	M. RESISTOR CH 1/10W 180K	1	
R243	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R244	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R245	ERDS2TJ101	C. RESISTOR 1/4W 100	1	
R246	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R247	ERJ3GEYJ821	M. RESISTOR CH 1/10W 820	1	
R248	ERJ3GEYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R249	ERJ3GEYJ393	M. RESISTOR CH 1/10W 39K	1	
R250, 51	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	2	
R257, 58	ERJ8GCYJ1R0	M. RESISTOR CH 1/8W 1	2	
R259	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R260	ERJ3GEYJ681	M. RESISTOR CH 1/10W 680	1	
R263, 64	ERJ3GEYJ181	M. RESISTOR CH 1/10W 180	2	
R265, 66	ERJ3GEYR000	M. RESISTOR CH 1/10W 0	2	
R267	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R301, 02	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	2	
R303	ERJ3GEYJ273	M. RESISTOR CH 1/10W 27K	1	
R304	ERJ3GEYJ683	M. RESISTOR CH 1/10W 68K	1	
R305	ERJ3GEYJ273	M. RESISTOR CH 1/10W 27K	1	
R306	ERJ3GEYJ683	M. RESISTOR CH 1/10W 68K	1	
R308-10	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	3	
R312	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R313, 14	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	2	
R315	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R316	ERJ3GEYJ474	M. RESISTOR CH 1/10W 470K	1	
R317	ERJ6GEYJ154	M. RESISTOR CH 1/10W 150K	1	
R318	VRE0034E183	M. RESISTOR CH 1/10W 18K	1	
R319	ERJ3GEYJ474	M. RESISTOR CH 1/10W 470K	1	
R320	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R327, 28	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	2	
R330	ERJ8GCYJ1R0	M. RESISTOR CH 1/8W 1	1	
R332	ERJ8GCYJ1R0	M. RESISTOR CH 1/8W 1	1	
R334, 35	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	2	
R337, 38	ERJ8GCYJ1R0	M. RESISTOR CH 1/8W 1	2	
R339	ERJ3GEYJ330	M. RESISTOR CH 1/10W 33	1	
R340, 41	ERJ8GCYJ681	M. RESISTOR CH 1/8W 680	2	
R342	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R344	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R346-49	ERJ3GEYJ330	M. RESISTOR CH 1/10W 33	4	
R356, 57	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	2	
R358	ERJ3GEYJ330	M. RESISTOR CH 1/10W 33	1	
R361	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R362	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R363	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R364	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R371, 72	ERJ3GEYJ271	M. RESISTOR CH 1/10W 270	2	
R401	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R402	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R404	ERJ3GEYR000	M. RESISTOR CH 1/10W 0	1	
R406	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R407	ERJ3GEYJ184	M. RESISTOR CH 1/10W 180K	1	
R408	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R411	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R412	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R414	ERJ3GEYR000	M. RESISTOR CH 1/10W 0	1	
R416	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R417	ERJ3GEYJ184	M. RESISTOR CH 1/10W 180K	1	
R418	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R421	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R422	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R424	ERJ3GEYR000	M. RESISTOR CH 1/10W 0	1	
R426	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R427	ERJ3GEYJ184	M. RESISTOR CH 1/10W 180K	1	
R428	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R431	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R432	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R434	ERJ3GEYR000	M. RESISTOR CH 1/10W 0	1	
R436	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R437	ERJ3GEYJ184	M. RESISTOR CH 1/10W 180K	1	
R438	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R441, 42	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R443	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R444, 45	ERJ3GEYJ273	M. RESISTOR CH 1/10W 27K	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R448	VRE0034E222	M. RESISTOR CH 1/10W 2.2K	1	
R449	VRE0034E682	M. RESISTOR CH 1/10W 6.8K	1	
R451	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R461	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R468, 69	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R470	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R471	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R472, 73	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R501, 02	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	2	
R503-06	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	4	
R508	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R509	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R510	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R512	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R513	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R514	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R515	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R516	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	1	
R517, 18	VRE0034E223	M. RESISTOR CH 1/10W 22K	2	
R519-21	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	3	
R524	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R526	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R527	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R528	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
R532	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R533	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
R534	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
R535	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R536	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R537-40	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	4	
R541	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
R542	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R543	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R544	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R545-51	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	7	
R701, 02	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R703	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R704	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R706	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R707	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R708	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R709	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R710	ERJ3GEYJ394	M. RESISTOR CH 1/16W 390K	1	
R711	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R712, 13	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R714	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R715	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R716, 17	ERJ8GCGY101	M. RESISTOR CH 1/8W 100	2	
R718	ERJ8GCGY300	M. RESISTOR CH 1/8W 30	1	
R721	ERJ8GEYJ271	M. RESISTOR CH 1/10W 270	1	
R722	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R727-30	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	4	
R731-34	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	4	
R735	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
R736	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R737, 38	ERJ8GCGY102	M. RESISTOR CH 1/8W 1K	2	
R739-42	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	4	
R743-46	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	4	
R747	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R748	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R749	ERJ8GCGY000	M. RESISTOR CH 1/8W 0	1	
R801	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R803, 04	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R805	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R806	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R810, 11	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R815-17	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	3	
R818, 20	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	2	
R821	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R822	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R823-25	ERJ8GEYJ681	M. RESISTOR CH 1/10W 680	3	
R826, 27	ERJ3GEYJ394	M. RESISTOR CH 1/16W 390K	2	
R828	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R829	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R830	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R831, 32	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R833	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R834, 35	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R836	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R837	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R838	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R839	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R840, 41	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R842	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R843, 44	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R845	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R846	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R847, 48	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	2	
R849	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R850	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R851, 52	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R853	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R854, 55	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R856	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R857	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R858	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R859	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R860, 61	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R862	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R863, 64	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R865	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R866	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R867, 68	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	2	
R869	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R870	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R871, 72	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R873	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R874, 75	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	2	
R876	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R877	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R878	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R879	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R880	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	1	
R881	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R882-84	ERJ8GCGYJ391	M. RESISTOR CH 1/8W 390	3	
R885	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R886	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R887	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R890-95	ERJ12YJ3R3	M. RESISTOR CH 1/2W 3.3	6	
R897, 98	ERJ12YJ3R3	M. RESISTOR CH 1/2W 3.3	2	
R905	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R906	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R907	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R908	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R910	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R913	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R914	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R915	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R917, 18	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R919-21	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	3	
R922	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R923	ERJ3GEYJ273	M. RESISTOR CH 1/16W 27K	1	
R924	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R925	ERJ3GEYJ273	M. RESISTOR CH 1/16W 27K	1	
R926	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R927, 28	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R932	ERJ3GEYJ000	M. RESISTOR CH 1/16W 0	1	
TG114	EYF6CU	TEST POINT	1	
TG300	EYF6CU	TEST POINT	1	
TP100-02	EYF6CU	TEST POINT	3	
TP107	EYF6CU	TEST POINT	1	
TP113	EYF6CU	TEST POINT	1	
TP115, 16	EYF6CU	TEST POINT	2	
TP201	EYF6CU	TEST POINT	1	
TP301, 02	EYF6CU	TEST POINT	2	
TP402	EYF6CU	TEST POINT	1	
TP431-34	EYF6CU	TEST POINT	4	
TP501, 02	EYF6CU	TEST POINT	2	

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
TP505	EYF8CU	TEST POINT	1	
TP902	EYF8CU	TEST POINT	1	
VR101	EVW7JGA00B54	V. RESISTOR 50K	1	
VR401	EVW7JGA00B54	V. RESISTOR 50K	1	
VR402	EVW7JGA00B24	V. RESISTOR 20K	1	
VR501, 02	EVW7JGA00B24	V. RESISTOR 20K	2	
		MISCELLANEOUS		
	YSC4371	SHELD CASE	1	
■ E16	VEP03B95A	RF P. C. BOARD	1 (RTL)	
C1, C2	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C3	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C4, C5	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C6	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1	
C7	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C8	ECEVOJV101Q	E. CAPACITOR CH6.3V 100U	1	
C9, 10	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C11	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C12	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C13	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C14, 15	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C16	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C17, 18	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C19	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C20, 21	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C22	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C23, 24	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C25	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C26-30	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	5	
C100	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C102	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1	
C104	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
C105, 06	ECUX1H080DCV	C. CAPACITOR CH 50V 8P	2	
C107	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C109	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1	
C111	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
C112, 13	ECUX1H080DCV	C. CAPACITOR CH 50V 8P	2	
C114, 15	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C200	ECUX1H121JCV	C. CAPACITOR CH 50V 120P	1	
C208	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C210	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C211	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C212	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C213	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C214, 15	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C217, 18	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C219	ECEVOJV330Q	E. CAPACITOR CH6.3V 33U	1	
C220, 21	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C223, 24	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C225	ECUX1H121JCV	C. CAPACITOR CH 50V 120P	1	
C231	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C232	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C233	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C234	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C235, 36	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C238	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C240, 41	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C243-46	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4	
C248-50	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3	
C251, 52	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	2	
C253	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C254, 55	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	2	
C257-60	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4	
C261, 62	ECEV1EV4R7Q	E. CAPACITOR CH 25V 4.7U	2	
C263	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C264	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
C265	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C266	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1	
C267, 68	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C269	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C270	ECEV1HNR22Q	E. CAPACITOR CH 50V 0.22U	1	
C271, 72	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	2	
C300-07	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	8	
C309	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C311	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C312	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C313	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C314-18	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	5	
C319	ECUX1H880JCV	C. CAPACITOR CH 50V 88P	1	
C320	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C321	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C322	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C323	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C324	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C400-07	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	8	
C408	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1	
C409	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	1	
C410-16	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	7	
C417	ECUX1H561JCV	C. CAPACITOR CH 50V 560P	1	
C418-21	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4	
C422	ECEV1GV100Q	E. CAPACITOR CH 16V 10U	1	
C423	ECUX1H821JV	C. CAPACITOR CH 50V 820P	1	
C424	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C425	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C426	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C427	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C428	ECEV1GV100Q	E. CAPACITOR CH 16V 10U	1	
C429-31	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3	
C432	ECUX1H332KBV	C. CAPACITOR CH 50V 3300P	1	
C433	ECUX1H121JCV	C. CAPACITOR CH 50V 120P	1	
C434	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C435	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	1	
C500	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	1	
C501-08	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	8	
C509, 10	ECUX1H122KBV	C. CAPACITOR CH 50V 1200P	2	
C511-14	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	4	
C515	ECUX1H880JCV	C. CAPACITOR CH 50V 88P	1	
C516-22	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	7	
C523-26	ECUX1H152KBV	C. CAPACITOR CH 50V 1500P	4	
C527-29	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3	
C530	ECUM1C154KBN	C. CAPACITOR CH 16V 0.15U	1	
C531	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1	
C532-34	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3	
C535	ECUX1H152KBV	C. CAPACITOR CH 50V 1500P	1	
C536-51	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	16	
D200-03	MA141WK	D1ODE	4	
D400	MA141WA	D1ODE	1	
D401	MA141WK	D1ODE	1	
FL1	VLFO941C223	FILTER	1	
IC1	TCVHC125FS	IC	1	
IC2	TC7S04FU	IC	1	
IC3	XC62AP5002P	IC	1	
IC4	XC62DN5002P	IC	1	
IC5	XC62AP3002P	IC	1	
IC6	XC62AP5002M	IC	1	
IC7	XC62DN5002P	IC	1	
IC8	TCVHC125FS	IC	1	
IC9	TC7S00FU	IC	1	
IC10	TC7W02FU	IC	1	
IC11	TC7S04FU	IC	1	
IC100	TC7W04FU	IC	1	
IC101	TC7W00FU	IC	1	
IC200, 01	TC4S89F	IC	2	
IC203	NJM062M	IC	1	
IC204	XC62DN5002P	IC	1	
IC205, 06	TC4S89F	IC	2	
IC207	NJM062M	IC	1	
IC208	UPC1663G	IC	1	
IC209	TC7W32FU	IC	1	
IC210, 11	TC7S04FU	IC	2	
IC300	UPC5102GS030	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC301	TC7W04FU	IC	1	
IC302	UPC1663G	IC	1	
IC303	TC7W08FU	IC	1	
IC304	TC7W04FU	IC	1	
IC400	UPC51026S030	IC	1	
IC401	UPC1663G	IC	1	
IC402	NJM062M	IC	1	
IC403	TC7S86FU	IC	1	
IC404	TC4WS3F	IC	1	
IC500	AN3730FA	IC	1	
IC501	AN3740FAP	IC	1	
IC502	MC140538F	IC	1	
L1	VLQ0319K220	COIL	22UH	1
L2, L3	VLQ0319K101	COIL	100UH	2
L100-O3	VLQ0163J2R2	COIL	2.2UH	4
L200-O3	VLQ0163J330	COIL	33UH	4
L300, O1	VLQ0163J1R0	COIL	1UH	2
L303	VLQ0163JR22	COIL	0.22UH	1
L400	VLQ0163JR22	COIL	0.22UH	1
L401	VLQ0163J1R0	COIL	1UH	1
L402	VLQ0163J470	COIL	47UH	1
L403	VLQ0163JR22	COIL	0.22UH	1
P1	VJS3827A060B	CONNECTOR (FEMALE)	1	
P2	VJP3358C012	CONNECTOR (MALE)	1	
P3	VJS3898B013	CONNECTOR (FEMALE)	1	
P4	VJS3898B010	CONNECTOR (FEMALE)	1	
Q1	2SB1114	TRANSISTOR	1	
Q2	2SD1280-S	TRANSISTOR	1	
Q3	2SB1218A-R	TRANSISTOR	1	
Q100	2SB709-R	TRANSISTOR	1	
Q101	2SD1819A-R	TRANSISTOR	1	
Q102, Q3	2SC3735B35	TRANSISTOR	2	
Q104	2SB709-R	TRANSISTOR	1	
Q105	2SD1819A-R	TRANSISTOR	1	
Q106, Q7	2SC3735B35	TRANSISTOR	2	
Q201	2SA1532-B	TRANSISTOR	1	
Q202-O5	2SD1979	TRANSISTOR	4	
Q207	2SC3935	TRANSISTOR	1	
Q208, Q6	2SC2954	TRANSISTOR	2	
Q210	2SC3935	TRANSISTOR	1	
Q212, 13	2SA1532-B	TRANSISTOR	2	
Q214	2SC2954	TRANSISTOR	1	
Q215	2SA1532-B	TRANSISTOR	1	
Q216-19	2SD1979	TRANSISTOR	4	
Q221, 22	2SC2954	TRANSISTOR	2	
Q225, 26	2SA1532-B	TRANSISTOR	2	
Q227	2SC2954	TRANSISTOR	1	
Q228	2SD1280-S	TRANSISTOR	1	
Q229	2SB1218A-R	TRANSISTOR	1	
Q230	2SB1114	TRANSISTOR	1	
Q231-34	2SK508K512	TRANSISTOR	4	
Q235	2SB1114	TRANSISTOR	1	
Q300	XN5531	TRANSISTOR-RESISTOR	1	
Q304, Q5	2SC3935	TRANSISTOR	2	
Q306	2SC3930-B	TRANSISTOR	1	
Q307	XN5531	TRANSISTOR-RESISTOR	1	
Q400, Q1	2SC3930-B	TRANSISTOR	2	
Q403	2SC3930-B	TRANSISTOR	1	
Q404	XN5531	TRANSISTOR-RESISTOR	1	
Q405	XN435	TRANSISTOR-RESISTOR	1	
Q406-11	2SC3930-B	TRANSISTOR	6	
Q500	2SC3930-B	TRANSISTOR	1	
Q501	2SB1219A-R	TRANSISTOR	1	
QR1	UN5213	TRANSISTOR-RESISTOR	1	
QR100, Q1	UN5213	TRANSISTOR-RESISTOR	2	
QR200, Q1	UN5213	TRANSISTOR-RESISTOR	2	
QR400	UN5212	TRANSISTOR-RESISTOR	1	
QR401	UN5213	TRANSISTOR-RESISTOR	1	
R1	ERJ3GEYJ103	M. RESISTOR OH 1/16W 10K	1	
R3	ERJ3GEYJ473	M. RESISTOR OH 1/16W 47K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4	ERJ3GEYG152	M. RESISTOR CH 1/10W 1.5K	1	
R5	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R6	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	1	
R7	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R8	ERJ06EYOR00	M. RESISTOR CH 1/10W 0	1	
R9	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R11	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	1	
R100, 01	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R102	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R103	ERJ3GEYJ563	M. RESISTOR CH 1/10W 56K	1	
R104	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R105	ERJ06EYJ5R6	M. RESISTOR CH 1/10W 5.6	1	
R106	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R107	ERJ3GEYJ122	M. RESISTOR CH 1/10W 1.2K	1	
R108, 09	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	2	
R110	ERJ06EYG270	M. RESISTOR CH 1/10W 27	1	
R111	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R112	ERJ3GEYJ122	M. RESISTOR CH 1/10W 1.2K	1	
R114	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R115	ERJ3GEYJ563	M. RESISTOR CH 1/10W 56K	1	
R116	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R117	ERJ06EYJ5R6	M. RESISTOR CH 1/10W 5.6	1	
R118	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R119	ERJ3GEYJ122	M. RESISTOR CH 1/10W 1.2K	1	
R120, 21	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	2	
R122	ERJ06EYG270	M. RESISTOR CH 1/10W 27	1	
R123	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R124	ERJ3GEYJ122	M. RESISTOR CH 1/10W 1.2K	1	
R200-02	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	3	
R203-06	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	4	
R207, 08	ERJ3GEYJ122	M. RESISTOR CH 1/10W 1.2K	2	
R212, 13	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	2	
R218	ERJ3GEYJ471	M. RESISTOR CH 1/10W 47K	1	
R219	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R220	ERJ3GEYJ471	M. RESISTOR CH 1/10W 47K	1	
R221	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R222, 23	ERJ3GEYJ330	M. RESISTOR CH 1/10W 33	2	
R224	ERJ3GEYJ881	M. RESISTOR CH 1/10W 880	1	
R225, 26	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	2	
R227	ERJ3GEYJ221	M. RESISTOR CH 1/10W 22K	1	
R229	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R230	ERJ3GEYJ881	M. RESISTOR CH 1/10W 880	1	
R231	ERJ3GEYG472	M. RESISTOR CH 1/10W 4.7K	1	
R232	ERJ3GEYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R233, 34	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R237	ERJ3GEYG472	M. RESISTOR CH 1/10W 4.7K	1	
R238, 39	ERJ3GEYJ182	M. RESISTOR CH 1/10W 1.8K	2	
R240	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R241	ERJ14YJ270H	M. RESISTOR CH 1/4W 27	1	
R242-44	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	3	
R245-48	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	4	
R249, 50	ERJ3GEYJ122	M. RESISTOR CH 1/10W 1.2K	2	
R251, 52	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	2	
R253	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	1	
R262, 63	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	2	
R264	ERJ3GEYJ221	M. RESISTOR CH 1/10W 22K	1	
R266	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R268	ERJ3GEYG472	M. RESISTOR CH 1/10W 4.7K	1	
R269	ERJ3GEYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R270, 71	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R274	ERJ3GEYG472	M. RESISTOR CH 1/10W 4.7K	1	
R275, 76	ERJ3GEYJ182	M. RESISTOR CH 1/10W 1.8K	2	
R277	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R278	ERJ14YJ270H	M. RESISTOR CH 1/4W 27	1	
R280	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R287, 88	ERJ3GEYJ182	M. RESISTOR CH 1/10W 1.8K	2	
R289, 90	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	2	
R291	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R292	ERJ3GEYG152	M. RESISTOR CH 1/10W 1.5K	1	
R293-96	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	4	
R300	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R301	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R306, 10	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	2	
R318	ERJ3GEYJ221	M. RESISTOR CH 1/10W 22K	1	
R319	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	

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Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R320	ERJ3GEYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R321, 22	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	2	
R323	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	1	
R324, 25	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	2	
R326, 27	ERJ3GEYJ331	M. RESISTOR CH 1/10W 330	2	
R328, 29	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	2	
R330	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R331	ERJ3GEYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R332-34	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	3	
R335, 36	ERJ3GEYJ272	M. RESISTOR CH 1/10W 2.7K	2	
R337	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R338	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R339	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R340	ERJ3GEYJ333	M. RESISTOR CH 1/10W 33K	1	
R341	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	1	
R343	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	1	
R400	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R401, 02	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	2	
R403	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R404	ERJ3GEYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R405, 06	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	2	
R407	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	1	
R408-11	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	4	
R412, 13	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	2	
R414	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R415	ERJ3GEYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R416	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R417, 18	ERJ3GEYJ562	M. RESISTOR CH 1/10W 5.6K	2	
R419, 20	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	2	
R421, 22	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	2	
R423, 24	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	2	
R425	ERJ3GEYJ681	M. RESISTOR CH 1/10W 680	1	
R426, 27	ERJ3GEYJ150	M. RESISTOR CH 1/10W 15	2	
R428	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R429	ERJ3GEYG152	M. RESISTOR CH 1/10W 1.5K	1	
R430	ERJ3GEYJ563	M. RESISTOR CH 1/10W 56K	1	
R431, 32	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R433	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R434	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R435	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R436	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R437, 38	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	2	
R439	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R440	ERJ3GEYG683	M. RESISTOR CH 1/10W 68K	1	
R441	ERJ3GEYG103	M. RESISTOR CH 1/10W 10K	1	
R442	ERJ3GEYJ333	M. RESISTOR CH 1/10W 33K	1	
R443	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R444	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R445, 46	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	2	
R447, 48	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	2	
R449	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R450	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	1	
R455, 56	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	2	
R458	ERJ3GEYJ333	M. RESISTOR CH 1/10W 33K	1	
R500	ERJ3GEYJ122	M. RESISTOR CH 1/10W 1.2K	1	
R501	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R503	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R504	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R505	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R506	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	1	
R508, 09	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	2	
R510	ERJ3GEYJ562	M. RESISTOR CH 1/10W 5.6K	1	
R511	ERJ3GEYJ273	M. RESISTOR CH 1/10W 27K	1	
R512	ERJ3GEYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R513	ERJ3GEYG822	M. RESISTOR CH 1/10W 8.2K	1	
R514	ERJ3GEYJ224	M. RESISTOR CH 1/10W 220K	1	
R515	ERJ3GEYJ821	M. RESISTOR CH 1/10W 820	1	
R516	ERJ3GEYJ680	M. RESISTOR CH 1/10W 68	1	
R517	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R518	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	1	
R519	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R520	ERJ3GEYJ331	M. RESISTOR CH 1/10W 330	1	
R521-23	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	3	
R524	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	1	
R526	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R527	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R528	ERJ3GEYJ123	M. RESISTOR CH 1/10W 12K	1	
R529	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R530	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R531, 32	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	2	
R533	ERJ3GEYG221	M. RESISTOR CH 1/10W 220	1	
R534	ERJ3GEYG822	M. RESISTOR CH 1/10W 8.2K	1	
R535	ERJ3GEYJ562	M. RESISTOR CH 1/10W 5.6K	1	
R536	ERJ3GEYG332	M. RESISTOR CH 1/10W 3.3K	1	
R537	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R538	ERJ3GEYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R2000	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R2001	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R2002	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R2003	ERJ3GEYG882	M. RESISTOR CH 1/10W 8.8K	1	
R2004-07	ERJ3GEYG152	M. RESISTOR CH 1/10W 1.5K	4	
R2008	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R2009	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R2010	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R2011	ERJ3GEYG882	M. RESISTOR CH 1/10W 8.8K	1	
R2012-15	ERJ3GEYG152	M. RESISTOR CH 1/10W 1.5K	4	
R2016	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R2018	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	1	
R2020	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	1	
R2023-25	ERJ3GEYOR00	M. RESISTOR CH 1/10W 0	3	
R2026, 27	ERJ3GEYJ272	M. RESISTOR CH 1/10W 2.7K	2	
R2028, 29	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	2	
R2031, 32	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	2	
R2038	ERJ3GEYG152	M. RESISTOR CH 1/10W 1.5K	1	
R2039	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R2041-43	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	3	
R2044	ERJ3GEYJ563	M. RESISTOR CH 1/10W 56K	1	
R2045, 46	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R2047	ERJ3GEYJ563	M. RESISTOR CH 1/10W 56K	1	
R2048	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R2049, 50	ERJ3GEYJ221	M. RESISTOR CH 1/10W 220	2	
TG1	EYF6CU	TEST POINT	1	
TG300	EYF6CU	TEST POINT	1	
TG500	EYF6CU	TEST POINT	1	
TH500	ERTD2FHL103S	THERMISTOR	10K	1
TP100, 01	EYF6CU	TEST POINT	2	
TP200-03	EYF6CU	TEST POINT	4	
TP300	EYF6CU	TEST POINT	1	
TP400-02	EYF6CU	TEST POINT	3	
TP500-08	EYF6CU	TEST POINT	9	
VR200	EVN7JGA00B13	V. RESISTOR	1K	1
VR400, 01	EVN7JGA00B23	V. RESISTOR	2K	2
		MISCELLANEOUS		
	VSC4375	SHIELD CASE (LOWER)		1
■ E17	VEP03B96B	VIDEO MAIN P.C. BOARD	1 (RTL)	
C1	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C2	VCK0151	C. CAPACITOR	1	
C3, C4	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C5	ECVE0GV4700	E. CAPACITOR CH 4V 47U	1	
C8	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C9	VCK0152	C. CAPACITOR	1	
C11	VCK0152	C. CAPACITOR	1	
C13	VCK0152	C. CAPACITOR	1	
C16, 17	VCK0152	C. CAPACITOR	2	
C19	VCK0152	C. CAPACITOR	1	
C21	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C22, 23	ECUX1H050CGV	C. CAPACITOR CH 50V 5P	2	
C24	VCK0152	C. CAPACITOR	1	
C25	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C26	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C32, 33	VCK0151	C. CAPACITOR	2	
C34	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C35	VCK0151	C. CAPACITOR	1	
C38	EQUX1H102JV	C. CAPACITOR CH 50V 1000P	1	
C39, 40	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C41	ECST1AX106Z	T. CAPACITOR CH 10V 10U	1	
C42, 43	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C44	VCK0151	C. CAPACITOR	1	
C45, 46	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C47	ECST1AX106Z	T. CAPACITOR CH 10V 10U	1	
C48	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C49	EQUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
C50	EQUX1H882KBV	C. CAPACITOR CH 50V 8800P	1	
C51-53	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	3	
C54	ECEVOG470Q	E. CAPACITOR CH 4V 47U	1	
C86	VCK0151	C. CAPACITOR	1	
C86	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C87	ECEVOG470Q	E. CAPACITOR CH 4V 47U	1	
C90, 91	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C92	ECEVOJ470Q	E. CAPACITOR CH 0.3V 47U	1	
C93, 94	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C95	ECEVOG470Q	E. CAPACITOR CH 4V 47U	1	
C96	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C97	ECEVOG470Q	E. CAPACITOR CH 4V 47U	1	
C98	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C99	EQUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C100	EQUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C101	EQUX1H222KBV	C. CAPACITOR CH 50V 2200P	1	
C103	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C104	VCK0150	C. CAPACITOR	1	
C105, 06	EQUX1H0500CV	C. CAPACITOR CH 50V 5P	2	
C141	EQUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C146	VCK0152	C. CAPACITOR	1	
C147	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C148	ECEVOG470Q	E. CAPACITOR CH 4V 47U	1	
C150, 51	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C152	ECEVOG470Q	E. CAPACITOR CH 4V 47U	1	
C501, 02	EQUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C504	EQUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C505	EQUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
C506	VCK0152	C. CAPACITOR	1	
C508	EQUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C509, 10	EQUX1H881JV	C. CAPACITOR CH 50V 880P	2	
FGD1	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
FL1	VLF1118	FILTER	1	
IC1	MN67372A2	IC	1	
IC2	MN4707F	IC	1	
IC3	MN673711	IC	1	
IC4	L7A1433	IC	1	
IC5	L7A1434	IC	1	
IC6	XC62AP2302P	IC	1	
IC7	TC7SH08FU	IC	1	
IC9	TCVHC125FS	IC	1	
IC10	TC7S88FU	IC	1	
IC11	M65401FP	IC	1	
IC12	TC7W04FU	IC	1	
IC13	M52660FP	IC	1	
IC14	TCVHC125FS	IC	1	
IC16	M881V4260S7	IC	1	
IC19	XC62AP3002P	IC	1	
IC22	M888344PFV	IC	1	
IC23	XC62AP5002M	IC	1	
IC24	UPC2384GA	IC	1	
IC25	TC7SH08FU	IC	1	
IC33	T160G11-1233	IC	1	
IC35	XC62AP3002P	IC	1	
IC36	TCVHC08FS	IC	1	
IC37	TC7SH08FU	IC	1	
IC501	M37709MAL161	IC	1	
IC502	S80727ANDQ	IC	1	
IC503	TC7SH08FU	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L1	VLP0145	COIL	1	
L3-11	VLP0155	COIL	9	
L13-16	VLP0155	COIL	4	
L25	VLQ0464K6R8	COIL 6.8UH	1	
L26	VLQ0319K101	COIL 100UH	1	
L29	VLP0155	COIL	1	
L30	ELJNA1R5JF	COIL 1.5UH	1	
L34	VLQ0319K101	COIL 100UH	1	
L42	VLP0145	COIL	1	
L44	VLQ0464K6R8	COIL 6.8UH	1	
L501	VLQ0464K6R8	COIL 6.8UH	1	
L502	VLP0155	COIL	1	
P1	VJP3808E140	CONNECTOR (MALE)	1	
P2	VJP3798A060B	CONNECTOR (MALE)	1	
QR1	UN5213	TRANSISTOR-RESISTOR	1	
R27	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R31	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R34	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R41	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R42	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R43	EQUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
R47	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R52, 53	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R54	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	1	
R56	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	1	
R58	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R60	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
R61	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R66, 67	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R68	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R70	VRT0145	RESISTOR	1	
R71, 72	ERJ3GEY0152	M. RESISTOR CH 1/16W 1.5K	2	
R73	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R110-12	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	3	
R113-15	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	3	
R116	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R117	ERJ3GEY472	M. RESISTOR CH 1/16W 4.7K	1	
R118	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R124	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R125	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R127, 28	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R183	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R184	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R186	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R190	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R195	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R196, 97	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	2	
R205, 06	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R211-18	EXB24VR000	COMBI. R-R	0	8
R219	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R222	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R223, 24	ERJ86GY0R00	M. RESISTOR CH 1/8W 0	2	
R227	VRE0071E270	M. RESISTOR CH 1/16W 27	1	
R501, 02	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	2	
R503, 04	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
R506	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R507, 08	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R509	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R510	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R512	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R513, 14	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R515, 16	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R517	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R518	ERJ3GEY472	M. RESISTOR CH 1/16W 4.7K	1	
R519, 20	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R521	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R522, 23	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	2	
R524-26	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	3	
R528	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R530	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R532	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R533-40	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	8	

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R541, 42	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2		D1008-11	NSQ03A04	DIODE	4	
R543	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1		D1012	MA142WK	DIODE	1	
R544	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1		D1013	MA8100-M	DIODE	1	
R546, 47	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2		D1016	MA8100-M	DIODE	1	
TP1, P2	EYF6CU	TEST POINT	2		D1017	MA8062-M	DIODE	1	
TP6-11	EYF6CU	TEST POINT	6		D1018	MA8036-H	DIODE	1	
TP501, 02	EYF6CU	TEST POINT	2		D1019	MA8056-M	DIODE	1	
X1	VSX0645	CRYSTAL OSCILLATOR	1		D1020	MA142WK	DIODE	1	
X501	VSX0637	CRYSTAL OSCILLATOR	1		D1030-32	SFPB-76V	DIODE	3	
					D1033	MA739	DIODE	1	
					D1035, 36	MA8043-M	DIODE	2	
					D1037-41	MA8068-H	DIODE	5	
E18	VEP01643A	POWER P.C. BOARD	1	(RTL)	IC1001-03	TL1451CNS	IC	3	
C1001	VCEA1DAP680	E. CAPACITOR 20V 68U	1		L1001, 02	VLQ0642	COIL	2	
C1002	VCEA1DAP101	E. CAPACITOR 20V 100U	1		L1003, 04	VLQ0785	COIL	2	
C1004	ECUM1C224KBN	C. CAPACITOR CH 16V 0.22U	1		L1005	VLQ0504220M	COIL 22UH	1	
C1005	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		L1006-11	VLQ0441K1R0	COIL 1.0UH	6	
C1006	ECUM1C334KBN	C. CAPACITOR CH 16V 0.33U	1		L1012	VLQ0417	COIL 10UH	1	
C1007	VCEA1DAP680	E. CAPACITOR 20V 68U	1		L1015	VLQ0417	COIL 10UH	1	
C1010	VCEA1AAP221	E. CAPACITOR 10V 220U	1		L1016	VLQ0441K1R0	COIL 1.0UH	1	
C1011	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		L1017, 18	VLQ0417	COIL 10UH	2	
C1014	ECUX1H102JCV	C. CAPACITOR CH 50V 1000P	1		L1019	VLQ0642	COIL	1	
C1015	ECUM1H122KBN	C. CAPACITOR CH 50V 1200P	1		L1020	ELELN560KA	COIL	1	
C1016	ECUX1C333KBV	C. CAPACITOR CH 16V 0.033U	1		L1021-24	VLQ0417	COIL 10UH	4	
C1017	ECUM1H682KBN	C. CAPACITOR CH 50V 6800P	1		L1026	VLQ0319K100	COIL 10UH	1	
C1018	VCEA1DAP680	E. CAPACITOR 20V 68U	1						
C1019	ECUM1H333KBN	C. CAPACITOR CH 50V 0.033U	1		P1001	VJP1231T	CONNECTOR (MALE) 4P	1	
C1024	ECUX1H681JV	C. CAPACITOR CH 50V 680P	1		P1002	VJP3808E060	CONNECTOR (MALE)	1	
C1025	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1						
C1026	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		Q1001	2SJ279S	TRANSISTOR	1	
C1027, 28	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	2		Q1002	2SK1748-Z	TRANSISTOR	1	
C1030	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		Q1003-06	2SJ279S	TRANSISTOR	4	
C1031	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		Q1007	2SD1820A-R	TRANSISTOR	1	
C1032	ECUX1H681JV	C. CAPACITOR CH 50V 680P	1		Q1008	2SB1219A-R	TRANSISTOR	1	
C1033	VCEA1DAP680	E. CAPACITOR 20V 68U	1		Q1009	2SD1820A-R	TRANSISTOR	1	
C1034	VCEA1AAP101	E. CAPACITOR 10V 100U	1		Q1010	2SB1219A-R	TRANSISTOR	1	
C1036	VCEA0JSC220M	E. CAPACITOR 6.3V 22U	1		Q1013	2SD1820A-R	TRANSISTOR	1	
C1038	VCEA0JSC220M	E. CAPACITOR 6.3V 22U	1		Q1014	2SB1219A-R	TRANSISTOR	1	
C1040	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		Q1015	2SD1820A-R	TRANSISTOR	1	
C1041	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		Q1016	2SB1219A-R	TRANSISTOR	1	
C1042	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		Q1017	2SD1820A-R	TRANSISTOR	1	
C1044	ECUX1H681JV	C. CAPACITOR CH 50V 680P	1		Q1018	2SB1219A-R	TRANSISTOR	1	
C1045	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		Q1019	2SD1820A-R	TRANSISTOR	1	
C1046	ECUX1E104KBN	C. CAPACITOR CH 25V 0.1U	1		Q1020	2SB1219A-R	TRANSISTOR	1	
C1047	VCEA1DAP680	E. CAPACITOR 20V 68U	1		Q1022	2SB1219A-R	TRANSISTOR	1	
C1048	VCEA1AAP101	E. CAPACITOR 10V 100U	1		Q1023	XN2401	TRANSISTOR-RESISTOR	1	
C1050	VCEA1DAP680	E. CAPACITOR 20V 68U	1		Q1024, 25	2SD1820A-R	TRANSISTOR	2	
C1051	VCEA1AAP101	E. CAPACITOR 10V 100U	1		Q1043	UN5111	TRANSISTOR-RESISTOR	1	
C1053	ECUX1H681JV	C. CAPACITOR CH 50V 680P	1						
C1054	ECUM1H123KBV	C. CAPACITOR CH 50V 0.012U	1		QR1001	UN5111	TRANSISTOR-RESISTOR	1	
C1056, 57	VCEA1DAP680	E. CAPACITOR 20V 68U	2		QR1003	UN5211	TRANSISTOR-RESISTOR	1	
C1059	VCEA0JSC220M	E. CAPACITOR 6.3V 22U	1						
C1062	ECEV0JV2200	E. CAPACITOR CH6.3V 22U	1		R1001, 02	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	2	
C1063	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		R1005, 06	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	2	
C1064-66	VCEA0JSC100M	E. CAPACITOR 6.3V 10U	3		R1007	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
C1067	VCEA1CAP101	E. CAPACITOR 16V 100U	1		R1010	ERJ3GEYJ332	M. RESISTOR CH 1/16W 3.3K	1	
C1070	VCEA1DAP680	E. CAPACITOR 20V 68U	1		R1011	ERJ3GEYJ560	M. RESISTOR CH 1/16W 56	1	
C1071	VCEA1AAP101	E. CAPACITOR 10V 100U	1		R1012	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
C1074	ECEA1CU101	E. CAPACITOR 16V 100U	1		R1013, 14	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	2	
C1080, 81	VCEA1AAP101	E. CAPACITOR 10V 100U	2		R1017	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
C1093	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1		R1018	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
C1094	ECA1EFQ221	E. CAPACITOR 25V 220U	1		R1019	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
C1095	VCEA1CAP101	E. CAPACITOR 16V 100U	1		R1020	ERJ3GEYJ332	M. RESISTOR CH 1/16W 3.3K	1	
C1096, 97	VCEA0JAP151	E. CAPACITOR 6.3V 150U	2		R1021	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	1	
C1098	ECA1EFQ221	E. CAPACITOR 25V 220U	1		R1022	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
C1099	VCEA1CAP101	E. CAPACITOR 16V 100U	1		R1023	ERJ3GEYJ560	M. RESISTOR CH 1/16W 56	1	
C1100, 01	VCEA0JAP151	E. CAPACITOR 6.3V 150U	2		R1024	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
C1102	ECEV1EV1000	E. CAPACITOR CH 25V 10U	1		R1025	ERJ8GCYJ472	M. RESISTOR CH 1/8W 4.7K	1	
C1103	ECUM1H333KBN	C. CAPACITOR CH 50V 0.033U	1		R1031	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
					R1032, 33	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	2	
D1003	NSQ03A04	DIODE	1		R1036	ERJ3GEYJ563	M. RESISTOR CH 1/16W 56K	1	
D1005	SFPB-76V	DIODE	1		R1037	ERJ3GEYJ822	M. RESISTOR CH 1/16W 8.2K	1	
					R1038	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1039	ERJ3GEYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R1040	ERJ3GEYJ560	M. RESISTOR CH 1/10W 56	1	
R1041	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R1042, 43	ERJ3GEYJ183	M. RESISTOR CH 1/10W 18K	2	
R1046, 47	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	2	
R1048, 49	ERJ3GEYJ332	M. RESISTOR CH 1/10W 3.3K	2	
R1050	ERJ3GEYJ560	M. RESISTOR CH 1/10W 56	1	
R1051	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R1052, 53	ERJ3GEYJ183	M. RESISTOR CH 1/10W 18K	2	
R1056	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R1057	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R1058	ERJ3GEYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R1059	ERJ3GEYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R1080	ERJ3GEYJ560	M. RESISTOR CH 1/10W 56	1	
R1081	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R1082, 63	ERJ3GEYJ183	M. RESISTOR CH 1/10W 18K	2	
R1086	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R1087	ERJ3GEYJ123	M. RESISTOR CH 1/10W 12K	1	
R1088, 69	ERJ3GEYJ332	M. RESISTOR CH 1/10W 3.3K	2	
R1070	ERJ3GEYJ560	M. RESISTOR CH 1/10W 56	1	
R1071	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R1073	VRE0071E682	M. RESISTOR CH 1/10W 6.8K	1	
R1077	ERJ3GEYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R1078, 79	ERM2PKR10	M. RESISTOR 2W 0.1	2	
R1080	VRE0071E391	M. RESISTOR CH 1/10W 390	1	
R1081	VRE0071E681	M. RESISTOR CH 1/10W 680	1	
R1082	VRE0071E103	M. RESISTOR CH 1/10W 10K	1	
R1083	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R1084	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R1093	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R1096	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R1099	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R1102	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R1118	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R1119	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R1120	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R1129	ERJ3GEYJ000	M. RESISTOR CH 1/10W 0	1	
R1143	ERJ3GEYJ121	M. RESISTOR CH 1/10W 120	1	
R1144	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R1145	ERJ3GEYJ820	M. RESISTOR CH 1/10W 82	1	
R1146, 47	ERJ3GEYJ680	M. RESISTOR CH 1/10W 68	2	
R1152	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R1156	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R1158	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
T1001	VTP0486	TRANSFORMER	1	
TG1001, 02	EYF6CU	TEST POINT	2	
TP1001	EYF6CU	TEST POINT	1	
TP1003	EYF6CU	TEST POINT	1	
TP1005-12	EYF6CU	TEST POINT	8	
VR1001	EVW7JGA00B52	V. RESISTOR 500	1	
VR1002-06	EVW7JGA00B23	V. RESISTOR 2K	5	
		MISCELLANEOUS		
	VSC4372	SHIELD CASE (UPPER)	1	
	VSC4373	SHIELD CASE (LOWER)	1	
■ E18	VEP04522B	AUDIO LCD P.C. BOARD	1	(RTL) AJ-D800E ONLY
■ E18	VEP04690A	AUDIO LCD P.C. BOARD	1	(RTL) AJ-D800E ONLY
C4001	ECU1G0471	E. CAPACITOR 18V 470U	1	
C4002	ECEV1CV4700	E. CAPACITOR CH 16V 47U	1	
C4003-06	ECEV0JV4700	E. CAPACITOR CH6.3V 47U	4	
C4007	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C4008	ECEV0JV1010	E. CAPACITOR CH6.3V 100U	1	
C4009-11	ECEV1CV1000	E. CAPACITOR CH 16V 10U	3	
C4012-17	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	6	
C4018, 19	ECU1H102JB	P. CAPACITOR 50V 1000P	2	
C4020, 21	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C4022	ECEV1CV1000	E. CAPACITOR CH 16V 10U	1	
C4023	ECUM1G105KBM	C. CAPACITOR CH 16V 1U	1	
C4024, 25	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4027	ECEV0GV4700	E. CAPACITOR CH 4V 47U	1	
C4028	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C4029	ECEV1CV1000	E. CAPACITOR CH 16V 10U	1	
C4030	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C4031	ECEV0JV3300	E. CAPACITOR CH6.3V 33U	1	
C4032, 33	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4034	ECEV0JV3300	E. CAPACITOR CH6.3V 33U	1	
C4035-37	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	3	
C4039, 40	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4041	ECEV1CV1000	E. CAPACITOR CH 16V 10U	1	
C4042	ECEV0JV1010	E. CAPACITOR CH6.3V 100U	1	
C4043	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C4044	ECEV1CV4700	E. CAPACITOR CH 16V 47U	1	
C4045	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C4046	ECEV1CV4700	E. CAPACITOR CH 16V 47U	1	
C4047, 48	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4049, 50	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	2	
C4051, 52	ECEV1HNM100	E. CAPACITOR CH 50V 1U	2	
C4053	ECUM1H104KBM	C. CAPACITOR CH 50V 0.1U	1	
C4054	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C4055	ECUX1H583KBM	C. CAPACITOR CH 50V 0.058U	1	
C4056	ECEV0JV4700	E. CAPACITOR CH6.3V 47U	1	
C4057, 58	ECEV1HVM100	E. CAPACITOR CH 50V 1U	2	AJ-D800E ONLY
C4059, 60	ECUV1H330JCV	C. CAPACITOR CH 50V 33P	2	AJ-D800E ONLY
C4061, 62	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	AJ-D800E ONLY
C4101	ECEV1CV4700	E. CAPACITOR CH 16V 47U	1	
C4102, 03	ECUM1H273KBM	C. CAPACITOR CH 50V 0.027U	2	
C4106	ECUM1H183KBM	C. CAPACITOR CH 50V 0.018U	1	
C4107, 08	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4109	ECEV0JV4700	E. CAPACITOR CH6.3V 47U	1	
C4114, 15	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4116, 17	ECEV0JV1000	E. CAPACITOR CH6.3V 10U	2	
C4118	ECEV0JV2200	E. CAPACITOR CH6.3V 22U	1	
C4119	ECEV1CV1000	E. CAPACITOR CH 16V 10U	1	
C4126, 27	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4128	ECU1C472JB	P. CAPACITOR 18V 4700P	1	
C4129	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C4130	ECEV0GV4700	E. CAPACITOR CH 4V 47U	1	
C4131	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	1	
C4132	ECEV0JV2200	E. CAPACITOR CH6.3V 22U	1	
C4133	ECEV0GV4700	E. CAPACITOR CH 4V 47U	1	
C4134	ECUX1H222KBV	C. CAPACITOR CH 50V 2200P	1	
C4137	ECEV0JV2200	E. CAPACITOR CH6.3V 22U	1	
C4138	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C4139	ECEV0JV2200	E. CAPACITOR CH6.3V 22U	1	
C4140	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C4141	ECUX1H102JCV	C. CAPACITOR CH 50V 1000P	1	
C4142	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	1	
C4143, 44	ECEV1HVM100	E. CAPACITOR CH 50V 1U	2	AJ-D800E ONLY
C4145, 46	ECUV1H330JCV	C. CAPACITOR CH 50V 33P	2	AJ-D800E ONLY
C4147, 48	ECUV1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	AJ-D800E ONLY
C4152	ECEV1CV1000	E. CAPACITOR CH 16V 10U	1	
C4153	ECUM1G105ZFN	C. CAPACITOR CH 16V 1U	1	
C4155	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C4157	ECUM1G105KBM	C. CAPACITOR CH 16V 1U	1	
C4158	ECEV0GV1010	E. CAPACITOR CH 4V 100U	1	
C4159	ECEV0GV4700	E. CAPACITOR CH 4V 47U	1	
C4160, 61	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	2	
C4162-65	ECEV1HNM100	E. CAPACITOR CH 50V 1U	4	
C4166	ECUM1H104KBM	C. CAPACITOR CH 50V 0.1U	1	
C4167	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C4168, 69	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4170	ECUM1G224ZFV	C. CAPACITOR CH 16V 0.22U	1	
C4171	ECUV1G104KBV	C. CAPACITOR CH 16V 0.1U	1	AJ-D800E ONLY
C4201	ECEV1CV4700	E. CAPACITOR CH 16V 47U	1	
C4202, 03	ECUM1H273KBM	C. CAPACITOR CH 50V 0.027U	2	
C4206	ECUM1H183KBM	C. CAPACITOR CH 50V 0.018U	1	
C4207, 08	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4209	ECEV0JV4700	E. CAPACITOR CH6.3V 47U	1	
C4214, 15	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	2	
C4216, 17	ECEV0JV1000	E. CAPACITOR CH6.3V 10U	2	
C4218	ECEV0JV2200	E. CAPACITOR CH6.3V 22U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4219	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1	
C4226, 27	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C4228	ECU1C472JB	F. CAPACITOR 16V 4700P	1	
C4229	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C4230	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C4231	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4232	ECEVOJV220Q	E. CAPACITOR CH6. 3V 22U	1	
C4233	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C4234	ECUX1H222KBV	C. CAPACITOR CH 50V 2200P	1	
C4237	ECEVOJV220Q	E. CAPACITOR CH6. 3V 22U	1	
C4238	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C4239	ECEVOJV220Q	E. CAPACITOR CH6. 3V 22U	1	
C4240	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C4241	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	1	
C4242	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	1	
C4243, 44	ECEV1HV010Q	E. CAPACITOR CH 50V 1U	2	AJ-D800E ONLY
C4245, 46	ECUV1H330JCV	C. CAPACITOR CH 50V 33P	2	AJ-D800E ONLY
C4247, 48	ECUV1E104ZV	C. CAPACITOR CH 50V 0.1U	2	AJ-D800E ONLY
C4252	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1	
C4253	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C4255	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C4257	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C4258	ECEVOGV101Q	E. CAPACITOR CH 4V 100U	1	
C4259	ECEVOGV470Q	E. CAPACITOR CH 4V 47U	1	
C4260, 61	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	2	
C4262-65	ECEV1HN010Q	E. CAPACITOR CH 50V 1U	4	
C4266	ECUM1H104KBM	C. CAPACITOR CH 50V 0.1U	1	
C4267	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C4268, 69	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C4270	ECUM1C224ZV	C. CAPACITOR CH 16V 0.22U	1	
C4171	ECUV1C104KBV	C. CAPACITOR CH 16V 0.1U	1	AJ-D800E ONLY
C4304	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1	
C4305	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4306	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1	
C4307	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4308	ECEVOJN100Q	E. CAPACITOR CH6. 3V 10U	1	
C4309	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C4406	ECEVOJN100Q	E. CAPACITOR CH6. 3V 10U	1	
C4409	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C4501, 02	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C4508	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C4509	ECEV1CV220Q	E. CAPACITOR CH 16V 22U	1	
C4510	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4511	ECEVOJV470Q	E. CAPACITOR CH6. 3V 47U	1	
C4512	ECST1VY684Z	T. CAPACITOR CH 35V 0.68U	1	
C4513	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C4514	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4515	ECEV1CV100Q	E. CAPACITOR CH 16V 10U	1	
C4516, 17	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
C4519	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4520	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C4521, 22	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C4523, 24	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	2	
C4602	ECEVOJV470Q	E. CAPACITOR CH6. 3V 47U	1	
C4603	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4604	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C4605	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C4606, 07	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	2	
C4608-10	ECUX1H561JCV	C. CAPACITOR CH 50V 560P	3	
C4611	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4612	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C4701	EGA1EF082Q	E. CAPACITOR 25V 82U	1	
C4702	ECEV1HV3R3Q	E. CAPACITOR CH 50V 3.3U	1	
C4703	EGA1JF022Q	E. CAPACITOR 63V 22U	1	
C4704	ECUM1H104KBM	C. CAPACITOR CH 50V 0.1U	1	
C4705	EGA1JF022Q	E. CAPACITOR 63V 22U	1	
C4707	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4708	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C4709	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1	
C4710	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C4711	ECEV1CV470Q	E. CAPACITOR CH 16V 47U	1	
C4712, 13	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	2	
C8502	ECEVOJV470Q	E. CAPACITOR CH6. 3V 47U	1	
C8503	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C8504	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C8505-07	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	3	
C8508	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C8509	ECEVOJV330Q	E. CAPACITOR CH6. 3V 33U	1	
C8510, 11	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	2	
C8512, 13	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	2	
C8524	ECEVOJV101Q	E. CAPACITOR CH6. 3V 100U	1	
C8525	ECEV1EV220Q	E. CAPACITOR CH 25V 22U	1	
C8526-28	ECEVOJV101Q	E. CAPACITOR CH6. 3V 100U	3	
D4001, 02	MA143	DIODE	2	
D4003	MA142K	DIODE	1	
D4004	MA143	DIODE	1	
D4101, 02	MA143	DIODE	2	
D4103	MA142K	DIODE	1	
D4106, 08	MA142K	DIODE	2	
D4107	MA714	DIODE	1	
D4201, 02	MA143	DIODE	2	
D4203	MA142K	DIODE	1	
D4205, 06	MA142K	DIODE	2	
D4207	MA714	DIODE	1	
D4601	MA142K	DIODE	1	
D4804, 05	MA714	DIODE	2	
D4606	MA142K	DIODE	1	
D4701	E10Q810	DIODE	1	
D4702	MA143	DIODE	1	
D4703	MA714	DIODE	1	
D6501	MA704	DIODE	1	
D6502-07	LNJ310M6URA	DIODE	6	
D6508	HZ16-1L	DIODE	1	
D6509, 10	LNJ310M6URA	DIODE	2	
D6511, 12	MA142K	DIODE	2	
D6513	BR3902S	DIODE	1	
D6514-28	MA142K	DIODE	15	
D6530-40	MA142K	DIODE	11	
D6541, 42	LNJ310M6URA	DIODE	2	
D6543, 44	MA142K	DIODE	2	
DP6501	EDD074YG1A4P	LCD	1	
FL4501	VLF1069	FILTER	1	
IC4001	UPC5022GA121	IC	1	AJ-D800E ONLY
IC4001	UPC5022GA144	IC	1	
IC4002	NJM062M-D	IC	1	
IC4003	MC74HC04F	IC	1	AJ-D800E ONLY
IC4003	MC74HC04AF	IC	1	
IC4004	MC14053BF	IC	1	
IC4005	NJM2904M	IC	1	
IC4006	NJM062M-D	IC	1	
IC4007	XC62AP3002P	IC	1	
IC4008	AK4503VF	IC	1	
IC4009	BA6138F	IC	1	
IC4010	NJM062M-D	IC	1	
IC4011	MC14052BF	IC	1	
IC4012	MC14053BF	IC	1	
IC4013	NJM2073M	IC	1	
IC4014	TC7W125FU	IC	1	
IC4015-17	NJM062M-D	IC	3	
IC4018	NJM4580ED	IC	1	AJ-D80E ONLY
IC4101	NJM4580ED	IC	1	AJ-D80E ONLY
IC4102	NJM062M-D	IC	1	
IC4103	NJM4580ED	IC	1	
IC4105	MC14052BF	IC	1	
IC4201	NJM4580ED	IC	1	AJ-D80E ONLY
IC4202	NJM062M-D	IC	1	
IC4203	NJM4580ED	IC	1	
IC4205	MC14052BF	IC	1	
IC4501	MC14053BF	IC	1	
IC4502	NJM062M-D	IC	1	
IC4503	CXA1102M	IC	1	
IC4602	MM13821-R	IC	1	
IC4603	UPD75328G742	IC	1	
IC4701	LM2577W-ADJ	IC	1	
IC4702	NJM062M-D	IC	1	
IC4703	MC74HC08AF	IC	1	

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Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC4704	NJM386M	IC	1	
IC8501	UPD75318BE58	IC	1	AJ-D800E ONLY
IC8501	UPD75318BE83	IC	1	
IC8502	S8420BF	IC	1	
IC8503	S8135OHG	IC	1	
IC8505	NJU7112AM	IC	1	
L4003, 04	VLQ0163J100	COIL	10UH	2
L4101, 02	VLQ0163J100	COIL	10UH	2
L4201, 02	VLQ0163J100	COIL	10UH	2
L4701	VLQ040768OK	COIL	68UH	1
L4702	VLQ0621	COIL		1
P4001	VJP3816B050	CONNECTOR (MALE)		1
P4002	VJP3172D002	CONNECTOR (MALE)		1
P4003	VJP1613T	CONNECTOR (MALE)		1
P4004	VJP1608T	CONNECTOR (MALE)		1
P4005	VJP3172D002	CONNECTOR (MALE)		1
P8501	VJP1944T	CONNECTOR (MALE)		1
PC4001	MCD5223	IC		1
Q4001	2SD1819A-R	TRANSISTOR		1
Q4002	2SD602A-S	TRANSISTOR		1
Q4003	2SB710A-R	TRANSISTOR		1
Q4004	2SK683-R	TRANSISTOR		1
Q4007	2SB1219-R	TRANSISTOR		1
Q4008	2SB1220-R	TRANSISTOR		1
Q4009, 10	2SD1979	TRANSISTOR		2
Q4101-Q3	2SD1819A-R	TRANSISTOR		3
Q4107	2SD1979	TRANSISTOR		1
Q4110	2SD1979	TRANSISTOR		1
Q4111	2SB1220-R	TRANSISTOR		1
Q4201-Q3	2SD1819A-R	TRANSISTOR		3
Q4207	2SD1979	TRANSISTOR		1
Q4210	2SD1979	TRANSISTOR		1
Q4211	2SB1220-R	TRANSISTOR		1
Q4302	2SD1979	TRANSISTOR		1
Q4305-Q7	2SD1979	TRANSISTOR		3
Q4402	2SD1979	TRANSISTOR		1
Q4405-Q7	2SD1979	TRANSISTOR		3
Q4702, Q3	2SD1979	TRANSISTOR		2
Q4704	2SD874-R	TRANSISTOR		1
Q4705	2SB766-R	TRANSISTOR		1
Q8501, Q2	2SD968-R	TRANSISTOR		2
Q8503	2SD602A-S	TRANSISTOR		1
QR4001	UN5113	TRANSISTOR-RESISTOR		1
QR4006	UN5213	TRANSISTOR-RESISTOR		1
QR4007	UN5113	TRANSISTOR-RESISTOR		1
QR4010	UN5213	TRANSISTOR-RESISTOR		1
QR4012	UN5213	TRANSISTOR-RESISTOR		1
QR4013	UN5113	TRANSISTOR-RESISTOR		1
QR4102, Q3	UN5113	TRANSISTOR-RESISTOR		2
QR4104	UN521F	TRANSISTOR-RESISTOR		1
QR4105	UN5113	TRANSISTOR-RESISTOR		1
QR4106	UN521F	TRANSISTOR-RESISTOR		1
QR4107	UN5213	TRANSISTOR-RESISTOR		1
QR4108	UN5113	TRANSISTOR-RESISTOR		1
QR4201	UN5213	TRANSISTOR-RESISTOR		1
QR4202, Q3	UN5113	TRANSISTOR-RESISTOR		2
QR4204	UN521F	TRANSISTOR-RESISTOR		1
QR4205	UN5113	TRANSISTOR-RESISTOR		1
QR4206	UN521F	TRANSISTOR-RESISTOR		1
QR4207	UN5213	TRANSISTOR-RESISTOR		1
QR4208	UN5113	TRANSISTOR-RESISTOR		1
QR4301, Q2	UN5113	TRANSISTOR-RESISTOR		2
QR4303, Q4	UN5213	TRANSISTOR-RESISTOR		2
QR4401, Q2	UN5113	TRANSISTOR-RESISTOR		2
QR4403, Q4	UN5213	TRANSISTOR-RESISTOR		2
QR4507	UN5113	TRANSISTOR-RESISTOR		1
QR4508	UN5213	TRANSISTOR-RESISTOR		1
QR4601	UN5213	TRANSISTOR-RESISTOR		1
QR6501	UN5211	TRANSISTOR-RESISTOR		1
QR6502-Q4	UN5213	TRANSISTOR-RESISTOR		3

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4001	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R4002	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	1	
R4003	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
R4004, 05	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	2	
R4006	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
R4011, 12	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R4013, 14	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	2	
R4015-17	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	3	
R4018	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
R4019	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R4020	ERJ3GEYOR00	M. RESISTOR CH 3W 0	1	AJ-D800E ONLY
R4021, 22	ERJ3GEYJ473	M. RESISTOR CH 3W 47K	2	AJ-D800E ONLY
R4023	ERJ3GEYJ182	M. RESISTOR CH 3W 1.8K	1	AJ-D800E ONLY
R4024	ERJ3GEYJ332	M. RESISTOR CH 3W 3.3K	1	AJ-D800E ONLY
R4025	ERJ3GEYJ122	M. RESISTOR CH 3W 1.2K	1	AJ-D800E ONLY
R4026	ERJ3GEYJ332	M. RESISTOR CH 3W 3.3K	1	AJ-D800E ONLY
R4027	ERJ3GEYJ122	M. RESISTOR CH 3W 1.2K	1	AJ-D800E ONLY
R4031	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R4035	ERJ3GEYJ154	M. RESISTOR CH 1/16W 150K	1	
R4036	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R4037	ERJ3GEYJ822	M. RESISTOR CH 1/16W 8.2K	1	
R4038, 39	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	2	
R4040	VRE0034E184	M. RESISTOR CH 1/10W 180K	1	
R4042	VRE0034E184	M. RESISTOR CH 1/10W 180K	1	
R4046	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	1	
R4047	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R4048	ERJ3GEYJ105	M. RESISTOR CH 1/16W 10K	1	
R4049	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R4051	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R4061, 62	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R4064, 65	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	2	
R4066	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R4068, 69	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	2	
R4070, 71	ERJ3GEYJ390	M. RESISTOR CH 1/16W 39	2	
R4073	ERJ6GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R4074, 75	ERJ12YJ682	M. RESISTOR CH 1/2W 6.8K	2	
R4076	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R4077	ERJ3GEYJ334	M. RESISTOR CH 1/16W 330K	1	
R4079	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R4081-83	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	3	
R4084, 85	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
R4086	ERJ3GEYJ154	M. RESISTOR CH 1/16W 150K	1	
R4087	ERJ3GEYJ682	M. RESISTOR CH 1/16W 6.8K	1	
R4088	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R4089	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R4090-93	ERJ6GEYJ150	M. RESISTOR CH 1/10W 15	4	
R4094	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R4095	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R4101	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R4102	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
R4103	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R4106	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R4110	ERJ3GEYJ822	M. RESISTOR CH 1/16W 8.2K	1	
R4111	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R4112	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
R4113	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
R4114	ERJ3GEYJ152	M. RESISTOR CH 1/16W 1.5K	1	
R4115	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R4116	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
R4117	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R4118, 19	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R4120	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R4121	ERJ3GEYJ155	M. RESISTOR CH 1/16W 1.5K	1	
R4122	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R4123	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R4124	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R4125	ERJ3GEYJ822	M. RESISTOR CH 1/16W 8.2K	1	
R4130	ERDS2TJ153	C. RESISTOR 1/4W 15K	1	AJ-D800E ONLY
R4130	ERJ3GEYJ153	M. RESISTOR CH 3W 15K	1	AJ-D800E ONLY
R4131, 32	ERJ3GEYJ473	M. RESISTOR CH 3W 47K	2	AJ-D800E ONLY
R4133	ERJ3GEYJ182	M. RESISTOR CH 3W 1.8K	1	AJ-D800E ONLY
R4134	ERJ3GEYJ332	M. RESISTOR CH 3W 3.3K	1	AJ-D800E ONLY
R4135	ERJ3GEYJ122	M. RESISTOR CH 3W 1.2K	1	AJ-D800E ONLY
R4136	ERJ3GEYJ332	M. RESISTOR CH 3W 3.3K	1	AJ-D800E ONLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4137	ERJ3GEYJ122	M. RESISTOR CH 3W 1.2K	1	AJ-D800E ONLY
R4142	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4144	ERJ3GEYJ083	M. RESISTOR CH 1/10W 68K	1	
R4145	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4146	ERJ3GEYJ105	M. RESISTOR CH 1/10W 1M	1	
R4147	VRE0034E102	M. RESISTOR CH 1/10W 1K	1	
R4148	VRE0034E222	M. RESISTOR CH 1/10W 2.2K	1	
R4149, 50	VRE0034E153	M. RESISTOR CH 1/10W 15K	2	
R4151, 52	VRE0034E472	M. RESISTOR CH 1/10W 4.7K	2	
R4153, 54	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R4155	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R4160	VRE0034E103	M. RESISTOR CH 1/10W 10K	1	
R4161	VRE0034E153	M. RESISTOR CH 1/10W 15K	1	
R4162	VRE0034E103	M. RESISTOR CH 1/10W 10K	1	
R4163	VRE0034E153	M. RESISTOR CH 1/10W 15K	1	
R4164-66	VRE0034E103	M. RESISTOR CH 1/10W 10K	3	
R4183	ERJ3GEYJ334	M. RESISTOR CH 1/10W 330K	1	
R4184	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4185	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R4186	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4187	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4189	ERJ3GEYJ273	M. RESISTOR CH 1/10W 27K	1	
R4190	ERJ3GEYJ124	M. RESISTOR CH 1/10W 120K	1	
R4191	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R4192	ERJ06EYJ100	M. RESISTOR CH 1/10W 1	1	
R4193-96	ERJ06EYJ150	M. RESISTOR CH 1/10W 15	4	
R4197	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4201	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4202	ERJ3GEYJ183	M. RESISTOR CH 1/10W 18K	1	
R4203	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R4206	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R4210	ERJ3GEYJ822	M. RESISTOR CH 1/10W 8.2K	1	
R4211	ERJ3GEYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R4212	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4213	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R4214	ERJ3GEYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R4215	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4216	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4217	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R4218, 19	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R4220	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	1	
R4221	ERJ3GEYJ155	M. RESISTOR CH 1/10W 1.5M	1	
R4222	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4223	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	1	
R4224	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R4225	ERJ3GEYJ822	M. RESISTOR CH 1/10W 8.2K	1	
R4226	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4230	ERDS2TJ153	C. RESISTOR 1/4W 15K	1	AJ-D800E ONLY
R4230	ERJ3GEYJ153	M. RESISTOR CH 3W 15K	1	AJ-D800E ONLY
R4231, 32	ERJ3GEYJ473	M. RESISTOR CH 3W 47K	2	AJ-D800E ONLY
R4233	ERJ3GEYJ182	M. RESISTOR CH 3W 1.8K	1	AJ-D800E ONLY
R4234	ERJ3GEYJ332	M. RESISTOR CH 3W 3.3K	1	AJ-D800E ONLY
R4235	ERJ3GEYJ122	M. RESISTOR CH 3W 1.2K	1	AJ-D800E ONLY
R4236	ERJ3GEYJ332	M. RESISTOR CH 3W 3.3K	1	AJ-D800E ONLY
R4237	ERJ3GEYJ122	M. RESISTOR CH 3W 1.2K	1	AJ-D800E ONLY
R4242	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4244	ERJ3GEYJ083	M. RESISTOR CH 1/10W 68K	1	
R4245	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4246	ERJ3GEYJ105	M. RESISTOR CH 1/10W 1M	1	
R4247	VRE0034E102	M. RESISTOR CH 1/10W 1K	1	
R4248	VRE0034E222	M. RESISTOR CH 1/10W 2.2K	1	
R4249, 50	VRE0034E153	M. RESISTOR CH 1/10W 15K	2	
R4251, 52	VRE0034E472	M. RESISTOR CH 1/10W 4.7K	2	
R4253, 54	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R4255	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R4260	VRE0034E103	M. RESISTOR CH 1/10W 10K	1	
R4261	VRE0034E153	M. RESISTOR CH 1/10W 15K	1	
R4262	VRE0034E103	M. RESISTOR CH 1/10W 10K	1	
R4263	VRE0034E153	M. RESISTOR CH 1/10W 15K	1	
R4264-66	VRE0034E103	M. RESISTOR CH 1/10W 10K	3	
R4283	ERJ3GEYJ334	M. RESISTOR CH 1/10W 330K	1	
R4284	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4285	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R4286	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4287	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4289	ERJ3GEYJ273	M. RESISTOR CH 1/10W 27K	1	
R4290	ERJ3GEYJ124	M. RESISTOR CH 1/10W 120K	1	
R4291	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R4292	ERJ06EYJ100	M. RESISTOR CH 1/10W 1	1	
R4293-96	ERJ06EYJ150	M. RESISTOR CH 1/10W 15	4	
R4297	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4305, 06	ERJ12YJ082	M. RESISTOR CH 1/2W 6.8K	2	
R4307	VRE0034E223	M. RESISTOR CH 1/10W 22K	1	
R4308	VRE0034E681	M. RESISTOR CH 1/10W 680	1	
R4309	VRE0034E221	M. RESISTOR CH 1/10W 220	1	
R4310	VRE0034E223	M. RESISTOR CH 1/10W 22K	1	
R4312, 13	ERJ3GEYJ000	M. RESISTOR CH 1/10W 0	2	
R4315	ERJ3GEYJ000	M. RESISTOR CH 1/10W 0	1	
R4317	ERJ3GEYJ000	M. RESISTOR CH 1/10W 0	1	AJ-D800E ONLY
R4318	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4319	ERJ3GEYJ334	M. RESISTOR CH 1/10W 330K	1	
R4320	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R4326	ERJ3GEYJ151	M. RESISTOR CH 1/10W 150	1	
R4327	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4328	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R4332	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4334	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R4335	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4336	ERJ3GEYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R4337	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4338	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R4339	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4340	ERJ3GEYJ821	M. RESISTOR CH 1/10W 820	1	
R4341	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4344	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4345	ERJ3GEYJ000	M. RESISTOR CH 1/10W 0	1	
R4405, 06	ERJ12YJ082	M. RESISTOR CH 1/2W 6.8K	2	
R4407	VRE0034E223	M. RESISTOR CH 1/10W 22K	1	
R4408	VRE0034E681	M. RESISTOR CH 1/10W 680	1	
R4409	VRE0034E221	M. RESISTOR CH 1/10W 220	1	
R4410	VRE0034E223	M. RESISTOR CH 1/10W 22K	1	
R4412, 13	ERJ3GEYJ000	M. RESISTOR CH 1/10W 0	2	
R4415	ERJ3GEYJ000	M. RESISTOR CH 1/10W 0	1	
R4417	ERJ3GEYJ000	M. RESISTOR CH 1/10W 0	1	AJ-D800E ONLY
R4418	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4419	ERJ3GEYJ334	M. RESISTOR CH 1/10W 330K	1	
R4420	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R4426	ERJ3GEYJ151	M. RESISTOR CH 1/10W 150	1	
R4427	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4428	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R4432	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4434	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R4435	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4436	ERJ3GEYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R4437	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4438	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R4439	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4440	ERJ3GEYJ821	M. RESISTOR CH 1/10W 820	1	
R4441	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4444	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4445	ERJ3GEYJ000	M. RESISTOR CH 1/10W 0	1	
R4502	ERJ3GEYJ082	M. RESISTOR CH 1/10W 6.8K	1	
R4503	ERJ3GEYJ153	M. RESISTOR CH 1/10W 15K	1	
R4509	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4510	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4511	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	1	
R4512	VRE0034E433	M. RESISTOR CH 1/10W 43K	1	
R4513	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4515	ERJ3GEYJ563	M. RESISTOR CH 1/10W 56K	1	
R4516	ERJ3GEYJ273	M. RESISTOR CH 1/10W 27K	1	
R4517	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R4524	ERJ3GEYJ391	M. RESISTOR CH 1/10W 390	1	
R4525	ERJ3GEYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4526	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R4527	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4529, 30	ERJ3GEYJ822	M. RESISTOR CH 1/10W 8.2K	2	
R4555, 56	ERJ3GEYJ472	M. RESISTOR CH 1/10W 4.7K	2	
R4601	ERJ3GEYJ471	M. RESISTOR CH 1/10W 470	1	
R4602	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R4603	VRE0034E221	M. RESISTOR CH 1/10W 220	1	

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4604	VRE0034E561	M. RESISTOR CH 1/10W 560	1	
R4605-39	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	35	
R4640	ERJ3GEYJ123	M. RESISTOR CH 1/10W 12K	1	
R4643-45	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	3	
R4646-48	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	3	
R4649	ERJ3GEYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R4701	VRE0034E101	M. RESISTOR CH 1/10W 100	1	
R4702	ERJ8GEYJ1R0	M. RESISTOR CH 1/10W 1	1	
R4704	ERJ8GEYJ681	M. RESISTOR CH 1/10W 680	1	
R4705	VRE0034E683	M. RESISTOR CH 1/10W 68K	1	
R4706	VRE0034E182	M. RESISTOR CH 1/10W 1.8K	1	
R4707	ERJ8GEYJ101	M. RESISTOR CH 1/8W 100	1	
R4708	ERJ3GEYJ333	M. RESISTOR CH 1/10W 33K	1	
R4710	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R4712	ERJ3GEYJ100	M. RESISTOR CH 1/10W 10	1	
R4713-18	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	6	
R4719, 20	ERJ8GEYJ2R2	M. RESISTOR CH 1/10W 2.2	2	
R4721-24	ERJ3GEYJ0R0	M. RESISTOR CH 1/10W 0	4	
R4725	ERJ3GEYJ470	M. RESISTOR CH 1/10W 47	1	
R4726	ERJ3GEYJ0R0	M. RESISTOR CH 1/10W 0	1	
R4728	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R4802	ERJ3GEYJ0R0	M. RESISTOR CH 1/10W 0	1	
R4807, 08	ERJ3GEYJ0R0	M. RESISTOR CH 1/10W 0	2	
R4810	ERJ8GEYJ0R0	M. RESISTOR CH 1/10W 0	1	
R4811	ERJ3GEYJ0R0	M. RESISTOR CH 1/10W 0	1	
R6501	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R6502	VRE0034E104	M. RESISTOR CH 1/10W 100K	1	
R6503	VRE0034E153	M. RESISTOR CH 1/10W 15K	1	
R6504, 05	VRE0034E563	M. RESISTOR CH 1/10W 56K	2	
R6506	VRE0034E472	M. RESISTOR CH 1/10W 4.7K	1	
R6507	ERJ8GEYJ155	M. RESISTOR CH 1/10W 1.5M	1	
R6508	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R6509, 10	ERJ3GEYJ0R0	M. RESISTOR CH 1/10W 0	2	
R6512-14	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	3	
R6515	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R6516, 17	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	2	
R6518, 19	ERJ3GEYJ104	M. RESISTOR CH 1/10W 100K	2	
R6530	ERJ3GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R6531	ERJ3GEYJ823	M. RESISTOR CH 1/10W 82K	1	
R6533	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R6534-36	ERJ3GEYJ101	M. RESISTOR CH 1/10W 100	3	
R6540, 41	ERJ3GEYJ394	M. RESISTOR CH 1/10W 390K	2	
R6542	ERJ3GEYJ681	M. RESISTOR CH 1/10W 680	1	
R6543	ERJ3GEYJ394	M. RESISTOR CH 1/10W 390K	1	
R6546	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R6550, 51	ERJ8GEYF561	M. RESISTOR CH 1/10W 560	2	
R6552	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
R6553	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R6554-61	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	8	
R6562-64	ERJ3GEYJ823	M. RESISTOR CH 1/10W 82K	3	
R6566	ERJ3GEYJ823	M. RESISTOR CH 1/10W 82K	1	
R6567-70	ERJ3GEYJ473	M. RESISTOR CH 1/10W 47K	4	
R6573	ERJ8GEYJ471	M. RESISTOR CH 1/10W 470	1	
R6574	ERJ8GEYJ631	M. RESISTOR CH 1/10W 330	1	
R6575	ERJ3GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R6576	ERJ3GEYJ102	M. RESISTOR CH 1/10W 1K	1	
RY4101	VSY2070	RELAY	1	
RY4201	VSY2070	RELAY	1	
SW4701	VSS0367-068	SWITCH	1	
SW6501	VSS0186	SWITCH	1	
SW6502	VSS0187	SWITCH	1	
SW6503, 04	VSS0186	SWITCH	2	
SW6505	VSS0187	SWITCH	1	
SW6506	VSS0186	SWITCH	1	
SW6507	EVQGS205K	SWITCH	1	
SW6508-10	VSS0187	SWITCH	3	
SW6511	EVQGS804B	SWITCH	1	
SW6512	VSS0186	SWITCH	1	
SW6514	VSS0186	SWITCH	1	
SW6516	EVQGS205K	SWITCH	1	
SW6524-26	EVQGS804B	SWITCH	3	
T4701	VL70623	TRANSFORMER	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
T64001	EYF8CU	TEST POINT	1	
TP4101, 02	EYF8CU	TEST POINT	2	
TP4201, 02	EYF8CU	TEST POINT	2	
TP4501	EYF8CU	TEST POINT	1	
TP4505	EYF8CU	TEST POINT	1	
TP4601, 02	EYF8CU	TEST POINT	2	
TP6501-06	EYF8CU	TEST POINT	6	
VR4001	EVW7JGA00B23	V. RESISTOR	2K	1
VR4002	EVW7JGA00B53	V. RESISTOR	5K	1
VR4101	VRV0080	V. RESISTOR		1
VR4102, 03	EVW7JGA00B14	V. RESISTOR	10K	2
VR4201	VRV0080	V. RESISTOR		1
VR4202, 03	EVW7JGA00B14	V. RESISTOR	10K	2
VR4301	EVW7JGA00B14	V. RESISTOR	10K	1
VR4401	EVW7JGA00B14	V. RESISTOR	10K	1
VR4501	EVW7JGA00B14	V. RESISTOR	10K	1
VR4503	EVW7JGA00B54	V. RESISTOR	50K	1
VR4701	EVW7JGA00B14	V. RESISTOR	10K	1
X4601	VXS0140	CRYSTAL OSCILLATOR		1
X6501	VXS0094C	CRYSTAL OSCILLATOR		1
X6502	VXS0140	CRYSTAL OSCILLATOR		1
		MISCELLANEOUS		
	VGL0721	BACK LIGHT BASE		1
	VWX1144	LED SPACER		1
E20	VEP01786A	REAR JACK P.C. BOARD	1 (RTL)	
C1020	EGST1GD478Z	T. CAPACITOR CH 16V 47U	1	
C1021	ECUM1G105KBN	C. CAPACITOR CH 16V 1U	1	
C1022	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C1023	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	1	
C1024, 25	ECQP1082JZ	P. CAPACITOR 100V 6800P	2	
C1026	ECEV1GV470Q	E. CAPACITOR CH 16V 47U	1	
C1029	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	1	
C1030	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C1031	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
C1032	ECUM1E473KBN	C. CAPACITOR CH 25V 0.047U	1	
C1033	ECEV0JN100Q	E. CAPACITOR CH6.3V 10U	1	
C1034	ECUM1H273KBN	C. CAPACITOR CH 50V 0.027U	1	
C1035	ECUX1H822KBV	C. CAPACITOR CH 50V 8200P	1	
C1036	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C1037	ECEV0JN100Q	E. CAPACITOR CH6.3V 10U	1	
C1038	ECUX1H222KBV	C. CAPACITOR CH 50V 2200P	1	
C1039	VCC0030	C. CAPACITOR		1
C1040	ECUX1E104ZV	C. CAPACITOR CH 25V 0.1U	1	
C1050-65	ECUX1H102JV	C. CAPACITOR CH 50V 1000P	16	
CP1001	VSO0634	CIRCUIT PROTECTOR		1
D1001	RK34	DIODE		1
D1002, 03	MA142K	DIODE		2
FL1001	EIR70F012B	TRANSFORMER		1
I01001	NJM4558B-D	IC		1
L1001	VL60423J472	COIL 4700UH		1
L1010	VLPO320	COIL		1
L1011, 12	VL1151A132	COIL 1300UH		2
L1013-23	VL1315A102	COIL 1000UH		11
P1001	VJP3810E040	CONNECTOR (MALE)		1
P1003	VJP3125B009	CONNECTOR (MALE)		1
P1004	VJP3125B003	CONNECTOR (MALE) 3P		1
P1006	VJP2824B002	CONNECTOR (MALE)		1
P1007	VJP2824A003	CONNECTOR (MALE) 3P		1
P1008	VJP3122D002	CONNECTOR (MALE)		1

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VEP00W03A VEP00W05A VEP80961B VEP00X87A VEP20537A

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
P1009	VJP3518B002	CONNECTOR (MALE)	1	
P1010	VJP3518B008	CONNECTOR (MALE)	1	
P1011	VJP3125B003	CONNECTOR (MALE)	3P	
P1012	VJP3125B004	CONNECTOR (MALE)	1	
P1014	VJP3125B004	CONNECTOR (MALE)	1	
P1015	VJP3068B050	CONNECTOR (MALE)	1	
P1016, 17	VJS3551	CONNECTOR (FEMALE)	2	
P1018	VJP3551	CONNECTOR (MALE)	1	
Q1001	2S-J280S	TRANSISTOR	1	
Q1002	2SB779-R	TRANSISTOR	1	
Q1003	2SD674-R	TRANSISTOR	1	
Q1005	2SD1819A-R	TRANSISTOR	1	
Q1006-08	2SD1979	TRANSISTOR	3	
Q1009	2SB1220-R	TRANSISTOR	1	
Q1010, 11	2SD1821-R	TRANSISTOR	2	
QR1001-06	UN5113	TRANSISTOR-RESISTOR	6	
R1001	ERJ6GEYG104	M. RESISTOR CH 1/10W 100K	1	
R1002	ERJ6GEYG151	M. RESISTOR CH 1/10W 150	1	
R1003	VLF1315A102	FILTER	1	
R1006, 07	VLF1315A102	FILTER	2	
R1010	VLF1315A102	FILTER	1	
R1012, 13	VLF1315A102	FILTER	2	
R1015	ERDS2TJ4R7	C. RESISTOR 1/4W 4.7	1	
R1016	ERJ6GEYJ1R0	M. RESISTOR CH 1/10W 1	1	
R1020	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1021	ERJ3GEYJ382	M. RESISTOR CH 1/16W 3.9K	1	
R1022	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R1023	ERJ8G0YJ1R0	M. RESISTOR CH 1/8W 1	1	
R1024	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
R1025	ERJ3GEYJ390	M. RESISTOR CH 1/16W 39	1	
R1028	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R1029	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R1030	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1032, 33	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	2	
R1034	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R1035	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R1036	ERJ3GEYJ124	M. RESISTOR CH 1/16W 120K	1	
R1037	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
R1038	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R1039	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1040	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R1041	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R1042	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
R1043	ERJ3GEYG822	M. RESISTOR CH 1/16W 8.2K	1	
R1044	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1045	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R1046, 47	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	2	
R1048	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
R1049	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
R1055	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
T1001	VL70729	TRANSFORMER	1	
TG1001	EYF80U	TEST POINT	1	
TP1001	EYF80U	TEST POINT	1	
VR1001	VRV0161B503	V. RESISTOR 50K	1	
VR1002	VRV0161B103	V. RESISTOR 10K	1	
		MISCELLANEOUS		
	VMP4846	JACK ANGLE	1	
	XYN3-K6	SCREW	1	
■ E21	VEP80980A	VTR FLEXIBLE P. C. BOARD	1 (RTL)	
■ E22	VEP00W03A	POWER SW P. C. BOARD	1 (RTL)	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
P9801	VJP1595T	CONNECTOR (MALE) 2P	1	
SW9801	VST0076	SWITCH	1	
■ E23	VEP00W04A	TOGGLE SW P. C. BOARD	1 (RTL)	
D8301-07	MA165	DIODE	7	
P9301	VJP1611T	CONNECTOR (MALE)	1	
SW9301-03	VST0300	SWITCH	3	
SW9304	VST0299	SWITCH	1	
		MISCELLANEOUS		
	VMP4838	SW HOLDER ANGLE	1	
■ E24	VEP00W05A	MODE CHECK P. C. BOARD	1 (RTL)	
P9501	VJP1595T	CONNECTOR (MALE) 2P	1	
SW9501	EVQGS205K	SWITCH	1	
■ E25	VEP00W07A	ALARM/MONITOR P. C. BOARD	1 (RTL)	
D9101	MA165	DIODE	1	
P9101	VJP1613T	CONNECTOR (MALE)	1	
R9101	ERDS2T0	C. RESISTOR 1/4W 0	1	
SW9101	EVQGS205K	SWITCH	1	
VR9101, 02	VRV0099	V. RESISTOR	2	
■ E26	VEP80961B	BACKUP BATTERY P. C. BOARD	1 (RTL)	
B1	R2032/BBH1	BATTERY HOLDER	1	
■ E27	VEP00W08B	HEAD PHONE P. C. BOARD	1 (RTL)	
C9201, 02	EQKF1H102ZF	C. CAPACITOR 50V 1000P	2	
J9201	VJJ0522	JACK	1	
L1, L2	VLP0147	COIL	2	
P9201	VJP1608T	CONNECTOR (MALE)	1	
■ E28	VEP00X87A	DC INPUT P. C. BOARD	1 (RTL)	
D1	S3V40	DIODE	1	
		MISCELLANEOUS		
	VJP2717	CONNECTOR (MALE)	1	
■ E29	VEP20537A	FRONT TOGGLE P. C. BOARD	1 (RTL)	
P1	VJS2949B015	CONNECTOR (FEMALE)	1	
P2	VJP1596T	CONNECTOR (MALE) 5P	1	

VEP20538A VEP80858A VEP80A13A VEP29019A
VEP86149A VEP80A14A VEP86252A VEP29022A

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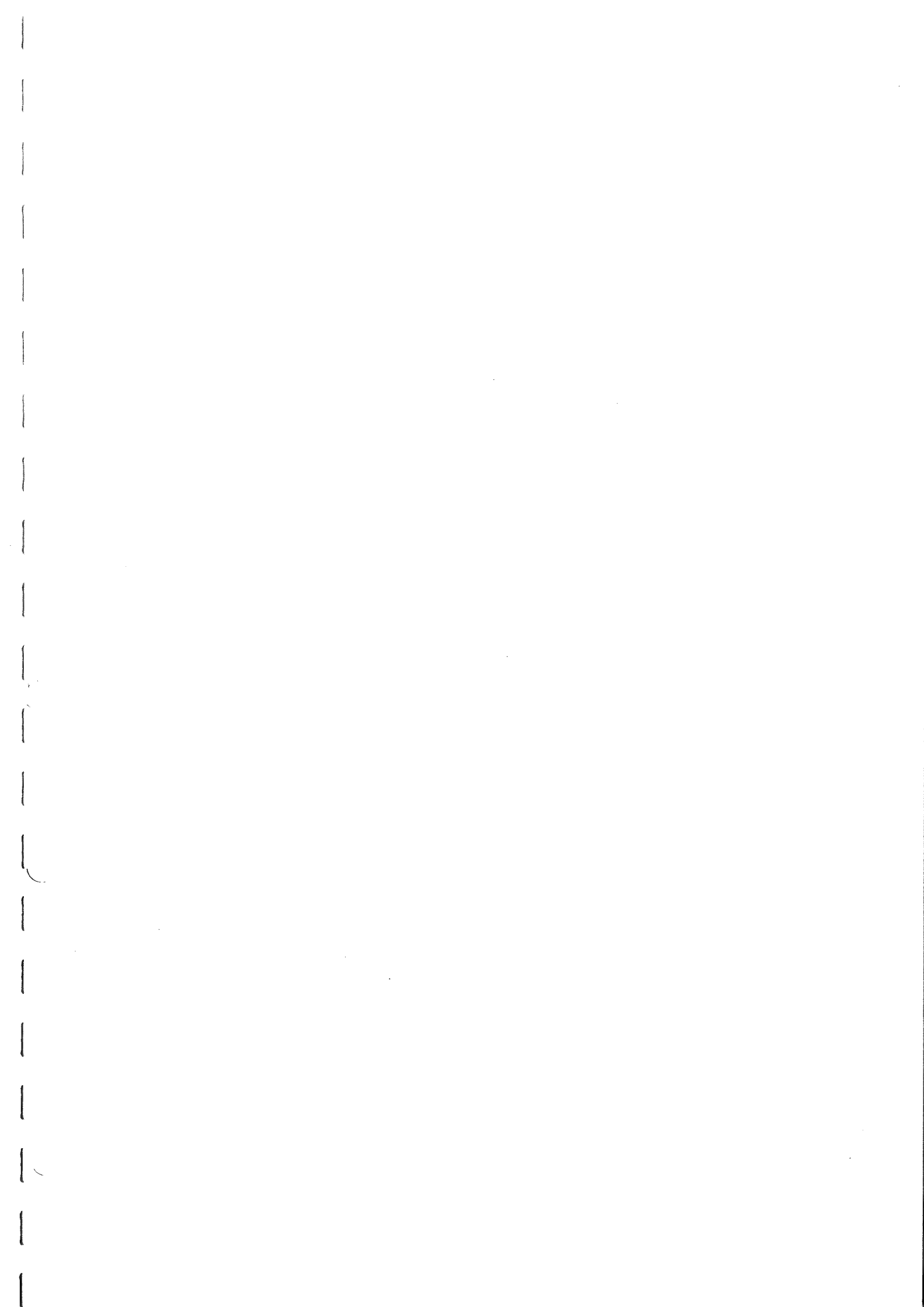
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P3	VJP1808T	CONNECTOR (MALE)	1	
P4	VJP1597T	CONNECTOR (MALE) 4P	1	
R1	ERDS2T0	C. RESISTOR 1/4W 0	1	
R2	ERDS2TJ562	C. RESISTOR 1/4W 5.6K	1	
R3	ERDS2TJ183	C. RESISTOR 1/4W 18K	1	
R4	ERDS2TJ333	C. RESISTOR 1/4W 33K	1	
SW1	VST0194	SWITCH	1	
SW2	VST0195	SWITCH	1	
		MISCELLANEOUS		
	VMP4839	SW HOLDER ANGLE	1	
■ E30	VEP20538A	FRONT P.C. BOARD	1 (RTL)	
P1	VJP1808T	CONNECTOR (MALE)	1	
SW1	EVQGSB056	SWITCH	1	
SW2	VRV0270	V. RESISTOR	1	
■ E31	VEP86149A	OPERATE P.C. BOARD	1 (RTL)	
D8001-O3	BR1102W	DIODE	3	
P501	VJP3125B010	CONNECTOR (MALE)	1	
SW8001-O5	EVQPHB03T	SWITCH	5	
■ E32	VEP80858A	BACK TALLY LED P.C. BOARD	1 (RTL)	
D1	TLRA116	DIODE	1	
SW1	VST0131	SWITCH	1	
		MISCELLANEOUS		
	VMD2126	LED SPACER	1	
■ E33	VEP80A14A	FRONT MIC P.C. BOARD	1 (RTL)	
L5-L7	VLP0147	COIL	3	
P1	VJS3417	CONNECTOR (FEMALE)	1	
P2	VJP2261	CONNECTOR (MALE)	1	
■ E34	VEP80A13A	BNC P.C. BOARD	1 (RTL)	
L1-L4	VLP0147	COIL	4	
P3	VJP1808T	CONNECTOR (MALE)	1	
R1	VRE0071E820	M. RESISTOR CH 1/10W 82	1	
■ E35	VEP86252A	MEMORY CARE P.C. BOARD	1 (RTL)	
		MISCELLANEOUS		
	VJP3839	CONNECTOR (MALE)	1	
	VMP4840	HOLDER ANGLE	1	
	XYN26+F6	SCREW	2	
	VNZ2566	CARD BRAKE BARRIER	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E36	VEP29019A	HDEF P.C. BOARD	1 (RTL)	
G9101, 02	ECA1GFQ331	E. CAPACITOR 16V 330U	2	
G9104	ECA1HFG820	E. CAPACITOR 50V 82U	1	
G9105	VCF0086J103	P. CAPACITOR 160V 0.01U	1	
G9106	VCF0086J332	P. CAPACITOR 3300P	1	
G9107, 08	VCF0086J223	P. CAPACITOR 0.022U	2	
G9110-12	ECKD3A472MEH	C. CAPACITOR 1KV 4700P	3	
G9113	ECA1CFQ121	E. CAPACITOR 16V 120U	1	
G9114	VCF0086J182	P. CAPACITOR 1800P	1	
D9101	MA142K	DIODE	1	
D9102	EC11FS2	DIODE	1	
D9103	MA142K	DIODE	1	
D9104	SHV-03	DIODE	1	
D9105	MA142K	DIODE	1	
D9106	EC11FS2	DIODE	1	
L9101	VLQ0417	COIL 10UH	1	
L9102	ELH5L220	COIL 22UH	1	
L9103	VLQEL06F270J	COIL	1	
L9104	VLQ0620	COIL	1	
P9008	VJP2311	CONNECTOR (MALE)	1	
P9007	VJP1595T	CONNECTOR (MALE) 2P	1	
P9008	VJP1232T	CONNECTOR (MALE) 5P	1	
P9009	VJP2271	CONNECTOR (MALE)	1	
G9101, 02	2SK1954Z	TRANSISTOR	2	
R9101	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R9102	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R9103	ERDS2TJ222	C. RESISTOR 1/4W 2.2K	1	
R9104	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
R9105	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R9107	VRE0034E300	M. RESISTOR CH 1/10W 30	1	
R9108	ERJ6GEYG105	M. RESISTOR CH 1/10W 1M	1	
R9109	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
R9110, 11	ERJ6GEYG105	M. RESISTOR CH 1/10W 1M	2	
R9112	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
R9113, 14	ERJ6GEYJ155	M. RESISTOR CH 1/10W 1.5M	2	
R9115	ERJ6GEYJ224	M. RESISTOR CH 1/10W 220K	1	
R9118	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R9119	ERJ3GEYJ105	M. RESISTOR CH 1/16W 1M	1	
R9120	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
△ T9101	ETF15L7A	TRANSFORMER	1	
T9101-O5	EYF6CU	TEST POINT	5	
VR9101	VRV0113B500	V. RESISTOR 50	1	
VR9102	EVMLRGA00B16	V. RESISTOR 10M	1	
VR9103	VRV0113B105	V. RESISTOR 1000K	1	
■ E37	VEP29022A	VIDEO P.C. BOARD	1 (RTL)	
G9001	ECA1GFQ331	E. CAPACITOR 16V 330U	1	
G9002	ECA0JKF121	E. CAPACITOR 6.3V 120U	1	
G9003-06	EGUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	4	
G9007	ECA1CKF580	E. CAPACITOR 16V 58U	1	
G9008	ECST1CY105Z	T. CAPACITOR CH 16V 1U	1	
G9009	EGUX1E223KBV	C. CAPACITOR CH 25V 0.023U	1	
G9010	ECST1CX106Z	T. CAPACITOR CH 16V 10U	1	
G9011	ECST1CY105Z	T. CAPACITOR CH 16V 1U	1	
G9012	ECST1C0226Z	T. CAPACITOR CH 16V 22U	1	
G9013	EGUX1E104ZFY	C. CAPACITOR CH 25V 0.1U	1	
G9014	EGUX1H682KBV	C. CAPACITOR CH 50V 6800P	1	
G9015	EGHU10472JB	P. CAPACITOR 16V 4700P	1	
G9016	EGUX1H331JCV	C. CAPACITOR CH 50V 330P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C9017	ECUM1C473KBV	C. CAPACITOR CH 16V 0.047U	1		Q9021	2SD1819A-R	TRANSISTOR	1	
C9018	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		R9001	ERJ12YJR68	M. RESISTOR CH 1/2W 0.68	1	
C9019	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9002	ERJ3GEYJ474	M. RESISTOR CH 1/16W 470K	1	
C9020	ECST1CY105Z	T. CAPACITOR CH 16V 1U	1		R9003	ERJ3GEYG822	M. RESISTOR CH 1/16W 8.2K	1	
C9021	ECST1CY335Z	T. CAPACITOR CH 16V 3.3U	1		R9004	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
C9022	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	1		R9005	ERJ3GEYJ153	M. RESISTOR CH 1/16W 15K	1	
C9023	ECUX1H181JCV	C. CAPACITOR CH 50V 180P	1		R9006	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
C9024	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9007	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	1	
C9025, 26	ECADJKF121	E. CAPACITOR 8.3V 120U	2		R9008	ERJ3GEYJ121	M. RESISTOR CH 1/16W 120	1	
C9027	ECST1CX106Z	T. CAPACITOR CH 16V 10U	1		R9009	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
C9028	ECUX1H272KBV	C. CAPACITOR CH 50V 2700P	1		R9010	ERJ3GEYG882	M. RESISTOR CH 1/16W 8.8K	1	
C9029	ECA1CKF580	E. CAPACITOR 16V 58U	1		R9011	VRE0034E123	M. RESISTOR CH 1/10W 12K	1	
C9030	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	1		R9012	ERJ3GEYJ883	M. RESISTOR CH 1/16W 88K	1	
C9031	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9013	ERJ3GEYG822	M. RESISTOR CH 1/16W 8.2K	1	
C9032	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		R9014	ERJ3GEYG152	M. RESISTOR CH 1/16W 1.5K	1	
C9033	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9015	ERJ3GEYJ912	M. RESISTOR CH 1/16W 9.1K	1	
C9034	ECST1AC226Z	T. CAPACITOR CH 10V 22U	1		R9016	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
C9035	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9018	ERJ3GEYJ582	M. RESISTOR CH 1/16W 5.8K	1	
C9036	ECA1CKF580	E. CAPACITOR 16V 58U	1		R9019	ERJ3GEYG882	M. RESISTOR CH 1/16W 8.8K	1	
C9037	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9020	ERJ3GEYJ582	M. RESISTOR CH 1/16W 5.8K	1	
C9039	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1		R9021	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
C9041	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	1		R9022	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
C9042	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9023	ERJ3GEYJ477	M. RESISTOR CH 1/16W 4.7	1	
C9044	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9024	ERJ3GEYJ681	M. RESISTOR CH 1/16W 680	1	
C9045	ECUX1HOR50CV	C. CAPACITOR CH 50V 0.5P	1		R9025	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	1	
C9046	ECA1HFG820	E. CAPACITOR 50V 82U	1		R9026	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
C9047	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9027	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
C9048	ECA1CKF580	E. CAPACITOR 16V 58U	1		R9028	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
C9049	ECUM1C1052FN	C. CAPACITOR CH 16V 1U	1		R9029	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
C9051	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1		R9030	VRE0034E472	M. RESISTOR CH 1/10W 4.7K	1	
C9055	ECA1EKF390	E. CAPACITOR 25V 39U	1		R9031	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
C9056	ECA1CKF580	E. CAPACITOR 16V 58U	1		R9032	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
C9057	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		R9033	ERJ3GEYJ150	M. RESISTOR CH 1/16W 15	1	
C9058	ECUX1E1042FV	C. CAPACITOR CH 25V 0.1U	1		R9034	ERJ3GEYJ224	M. RESISTOR CH 1/16W 220K	1	
D9001	MA142K	DIODE	1		R9035	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
D9002	RD10UMB1	DIODE	1		R9036	ERJ3GEYJ181	M. RESISTOR CH 1/16W 180	1	
D9003	MA143	DIODE	1		R9037, 38	ERJ3GEYJ473	M. RESISTOR CH 1/16W 47K	2	
D9005, 06	MA143	DIODE	2		R9039	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
D9007, 08	MA3047	DIODE	2		R9040	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
DL9001	VLD0259	DELAY LINE	1		R9041	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
IC9001	AN77L05M	IC	1		R9042	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
IC9002	HA11423MP	IC	1		R9043	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
IC9003	TC7804F	IC	1		R9044	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
IC9004	TC7832F	IC	1		R9045	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
IC9005	MC74HC184F	IC	1		R9046	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
IC9006	M68311FP	IC	1		R9047	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
IC9007	MC74HC08AF	IC	1		R9048	ERJ3GEYJ104	M. RESISTOR CH 1/16W 100K	1	
IC9008	TC7804F	IC	1		R9049	VRE0034E223	M. RESISTOR CH 1/10W 22K	1	
IC9009	AN8008M	IC	1		R9050	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
P9001	VJP2741A016	CONNECTOR (MALE) 16P	1		R9051	ERJ3GEYG224	M. RESISTOR CH 1/16W 220K	1	
P9002	VJP2312	CONNECTOR (MALE)	1		R9052	VRE0034E913	M. RESISTOR CH 1/10W 91K	1	
P9003	VJP2311	CONNECTOR (MALE)	1		R9053	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
P9004	VJP2279	CONNECTOR (MALE)	1		R9055, 56	VRE0034E102	M. RESISTOR CH 1/10W 1K	2	
P9005	VJP1595T	CONNECTOR (MALE) 2P	1		R9058	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
Q9001-03	2SD1819A-R	TRANSISTOR	3		R9059	VRE0034E102	M. RESISTOR CH 1/10W 1K	1	
Q9004	2SC3624	TRANSISTOR	1		R9060	VRE0034E222	M. RESISTOR CH 1/10W 2.2K	1	
Q9005	2SA1411	TRANSISTOR	1		R9061	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
Q9006-08	2SD1819A-R	TRANSISTOR	3		R9063	VRE0034E682	M. RESISTOR CH 1/10W 6.8K	1	
Q9009	2SC3624	TRANSISTOR	1		R9064, 65	VRE0034E222	M. RESISTOR CH 1/10W 2.2K	2	
Q9010	2SA1411	TRANSISTOR	1		R9066	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
Q9011	2SD1819A-R	TRANSISTOR	1		R9067, 68	VRE0034E582	M. RESISTOR CH 1/10W 5.8K	2	
Q9012	2SB1218A-R	TRANSISTOR	1		R9069	VRE0034E473	M. RESISTOR CH 1/10W 47K	1	
Q9013	2SK508-B	TRANSISTOR	1		R9070	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
Q9014	2SB1218A-R	TRANSISTOR	1		R9071	VRE0034E473	M. RESISTOR CH 1/10W 47K	1	
Q9015	2SD1821-R	TRANSISTOR	1		R9072, 73	ERJ3GEYJ880	M. RESISTOR CH 1/16W 88	2	
Q9016	2SC4181	TRANSISTOR	1		R9076	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
Q9017	2SD1821-R	TRANSISTOR	1		R9077	ERJ3GEYJ180	M. RESISTOR CH 1/16W 1	1	
Q9018	2SB1220-R	TRANSISTOR	1		R9078	ERJ3GEYJ470	M. RESISTOR CH 1/16W 47	1	
Q9019	UN511L	TRANSISTOR-RESISTOR	1		R9079, 80	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	2	
Q9020	UN5214	TRANSISTOR-RESISTOR	1		R9081	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	1	
					R9082, 83	ERJ3GEYJ881	M. RESISTOR CH 1/16W 880	2	
					R9085	ERJ3GEYJ881	M. RESISTOR CH 1/16W 880	1	
					R9087	ERJ3GEYJ881	M. RESISTOR CH 1/16W 880	1	
					R9089	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	

AJ-D800E

PRT-46



Panasonic

Technical Bulletin DVCPRO : AJ-D700E, AJ-D800E

AJ-D700E/EN	AJ-D800E/EN	Order No.	Subject	Effective from
Service Manual		VSD9703MG01A	AJ-D700P/E/EN Ver.1.0 Vol.1	
Service Manual		VSD9606M501B	AJ-D700E/EN Vol.2	
	Service Manual	VSD9708M606A	AJ-D800E/EN Vol.1	
	Service Manual	VSD9708M606B	AJ-D800E/EN Vol.2	
1		VSD9607SB601	Introduction of AJ-MC700P	
2		VSD9607SB602	Introduction of AJ-MH700P	
3		VSD9607SB603	Correction in Parts Number List	
4		VSD9609SB604	Reduction of Camera Beat Noise	F6TKA0001
5		VSD9609SB605	Reduction of Jitter Noise	F6TKA0001
6		VSD9609SB606	Improvement of Parts and Wire Touching	F6TKA0001
7		VSD9609SB607	Correction in Parts Number List	F6TKA0001
8		VSD9609SB608	Correction in Parts Number List	F6TKA0001
9		VSD9609SB609	Correction in Parts Number List	F6TKA0001
10		VSD9609SB610	Reduction of Beat Noise at Hi-Gain setting	F6TKA0001
11		VSD9609SB611	Improvement of Modulation Adjustment	F6TKA0001
12		VSD9609SB612	Change of IC	G6TKA0001
13		VSD9610SB613	Improvement of Picture Quality during Search Mode	G6TKA0001
14		VSD9610SB614	Software Version Up Grade	F6TKA0001
15		VSD9610SB615	Reduction of Vertical Noise at Hi-gain Setting	G6TKA0001
16		VSD9610SB616	Software Version Up Grades	G6TKA0001
17		VSD9611SB617	Improvement of Test Audio Level	I6TKA0001
18		VSD9611SB618	Reduction of High Power Consumption	I6TKA0001
19		VSD9611SB619	Reduction of White Vertical Noise	K6TKA0001
20		VSD9611SB620	Improvement of V Synchronisation	K6TKA0001
21		VSD9611SB621	Change of ROM Type	K6TKA0001
22		VSD9611SB622	Improvement of Burst Level VR Variable Range	J6TKA0001
23		VSD9612SB623	Improvement of LSI IC	L6TKA0001
24		VSD9612SB624	Improvement of Audio Distortion	L6TKA0001
25		VSD9701SB625	Improvement of Time Code Back Up	A7TKA0001
26		VSD9704SB626	Service Manual Correction	---

Technical Bulletin DVCPRO : AJ-D700E, AJ-D800E

AJ-D700E/EN	AJ-D800E/EN	Order No.	Subject	Effective from
28		VSD9704SB628	Improvement of Cassette Holder Spring	F6TKA0001
29		VSD9704SB629	Improvement of Ratchet Function	F6TKA0001
30		VSD9704SB630	Improvement of Tension Sensor Unit	F6TKA0001
31		VSD9704SB631	Countermeasure for Tape Slack	F6TKA0001
32		VSD9704SB632	Standardization of Screw and Washer	G6TKA0001
33		VSD9704SB633	Change of Connector Cover Supply Method	H6TKA0001
34		VSD9704SB634	Improvement of T1 Boat Unit Lock	H6TKA0001
35		VSD9704SB635	Change of Screws for Cleaner Solenoid Unit	H6TKA0001
36		VSD9704SB636	Improvement of Mount Ring of Viewfinder	I6TKA0001
37		VSD9704SB637	Improvement of Ratchet Arm Unit	I6TKA0001
38		VSD9704SB638	Improvement of Escutcheon Unit of Viewfinder	K6TKA0001
40		VSD9704SB640	Improvement of End Cap Crack on View Finder	B7TKA0001
41		VSD9705SB641	Reduction of Block Error Noise	C7TKA0001
42		VSD9705SB642	Reduction of Vertical Line Noise	C7TKA0001
43		VSD9705SB643	Improvement of PCM Audio Noise (Audio VCO)	D7TKA0001
48		VSD9706SA677	Extension of Maintenance Time	
49		VSD9710SB648	Improvement of QUAD Adjustment	D7TKA0001
51	2	VSD9710SB650	Improvement of Cleaning Solenoid Motion Sound	F7TKA0001
52		VSD9710SB651	Software Version Up Grade	F7TKA0001
59	9	VSD9710SB656	Change of Screws	G7TKA0001
66		VSD9711SB662	Software Version Up Grades	I7TKA0001

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Extension of Maintenance Time

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D750E/EN	77	VSD9606M502A	
AJ-D700E/EN	48	VSD9606M501A	
AJ-D650E	49	VSD9612MJ01A	
AJ-D640E	49	VSD9612MJ01A	
AJ-D800E/EN	1	VSD9708M606A	

The Maintenance Time has been extended after investigation of each parts durability.

The listed maintenance time is based on head rotation time, unless it is otherwise state as based on Operation Time.

(Unit hours)

	Current AJ-D700 AJ-D800	Current AJ-D750 AJ-D650 AJ-D640	New Common	Remark
Cylinder Unit	1,000	1,500	2,000	
Pinch Arm Unit	1,000	1,500	4,000	
Cleaning Arm Unit	1,000	1,500	2,000	
S Reel (Rotor Unit)	1,000	6,000	6,000	
T Reel (Rotor Unit)	1,000	6,000	6,000	
Thrust Screw Unit	Not Listed	Not Listed	6,000	Newly added
S1 Loading Arm Unit	3,000	3,000	12,000	Replaced with Mech. Chassis Unit
T1 Boat Unit	3,000	3,000	12,000	Replaced with Mech. Chassis Unit
S5 Post Unit	3,000	3,000	12,000	Replaced with Mech. Chassis Unit
Tension Arm Unit	3,000	3,000	12,000	Replaced with Mech. Chassis Unit
S Brake Arm Unit	Not Listed	Not Used	6,000	
T Brake Arm Unit	Not Listed	Not Used	6,000	
Front Loading Unit	Not Used	6,000	12,000	Replaced with Mech. Chassis Unit
Mech. Chassis Unit	3,000	6,000	12,000	
1.5" CRT (EVF)	Not Listed	Not Used	5,000	Operation Time.
Fan Motor	Not Used	3,000	10,000	Operation Time (Current head rotation time)
LCD Display	Not Used	Not Listed	10,000	Operation TimeAJ-LT75 only

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1. AJ-D700E/EN / AJ-D800E/EN Maintenance Maintenance Schedule

	Name	Part Number	Hours of Use (hours)					
			2,000	4,000	6,000	8,000	10,000	12,000
	Tape Path Cleaning		△ Clean the Tape Path at each 500 hours					
1	Cylinder Unit	VEG1337	●	●	●	●	●	◎
2	Pinch Arm Unit	VXL2684		●*1		●*1		◎
3	Cleaning Arm Unit	VXL2748	●	●	●	●	●	◎
4	S Reel(Rotor Unit)	VEM0629			●			◎
5	T Reel(Rotor Unit)	VEM0630			●			◎
6	S Brake Arm Unit	VXL2705			●			◎
7	T Brake Arm Unit	VXL2706			●			◎
8	Thrust Screw Unit	VXQ0556			●			◎
9	Mech. Chassis Unit	VXY1229						●
10	1.5" CRT (EVF)	M04KYS07WB	Replace the CRT at each 5,000 hours <u>Operation Time</u> .					

Note: Hours of Use are based on the head rotation hours.

Hours of Use are recommendation. It may depend on temperature, humidity or dust.

Hours of Use are listed as the reference of maintenance. They do not mean guaranteed hours.

◎:These parts are included in Mech. Chassis Unit. Replacing Mech. Chassis Unit is recommended.

*1. The lubrication is necessary when replacing the Pinch Arm Unit.

△:This mark means cleaning is necessary. Detail cleaning procedures are written in Service Manual.

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Improvement of Cleaning Solenoid Motion Sound

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN	51	VSD9606M501A/B	F7TKA0001
AJ-D800E/EN	2	VSD9708M606A/B	F7TKA0001

Board : Servo (VEP02437B)

To decrease the motion sound of the Cleaning Solenoid, power supply voltage of the Cleaning Solenoid is changed from UNREG to 10.5V. The following modification is performed.

- 1). Resistor R749 (1/8W,0Ω) is deleted from the foil side.
- 2). Resistor R750 (1/8W,0Ω) is added to no mounted pattern of the foil side.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
R749	ERJ8GEY0R00	—	M. RESISTOR CH 1/8W 0	1→0	
R750	—	ERJ8GEY0R00	M. RESISTOR CH 1/8W 0	0→1	

AJ-D700

Ref. No.	Schematic Diagram		P.C.Board	
	Page	Area No.	Page	Area No.
R749	2-53	D-7 (7/9)	3-11	B-4 (F)
R750	2-53	D-7 (7/9)	3-11	B-4 (F)

AJ-D800

Ref. No.	Schematic Diagram		P.C.Board	
	Page	Area No.	Page	Area No.
R749	SCM-59	D-7 (7/9)	CBA-11	B-4 (F)
R750	SCM-59	D-7 (7/9)	CBA-11	B-4 (F)

2. AJ-D750E/EN / AJ-D650E / AJ-D640E Maintenance Maintenance Parts Chart

	Name	Part Number	Hours of Use (unit hours)					
			2,000	4,000	6,000	8,000	10,000	12,000
	Tape Path Cleaning		△ Clean the Tape Path at each 500 hours					
1	Cylinder Unit	VEG1337	●	●	●	●	●	◎
2	Pinch Arm Unit	VXL2684		●*1		●*1		◎
3	Cleaning Arm Unit	VXL2748	●	●	●	●	●	◎
4	S Reel Motor A Unit	VEM0635			●			◎
5	T Reel Motor A Unit	VEM0636			●			◎
6	Thrust Screw Unit	VXQ0556			●			◎
7	Cassette Compartment Unit	VXA5979						●
8	Mech. Chassis Unit	VXY1254Z1						●
9	Fan Motor	VRF0190	Replace Fan Motor at each 10,000 hours <u>Operation Time</u> .					

Note: Hours of Use are based on the head rotation hours.

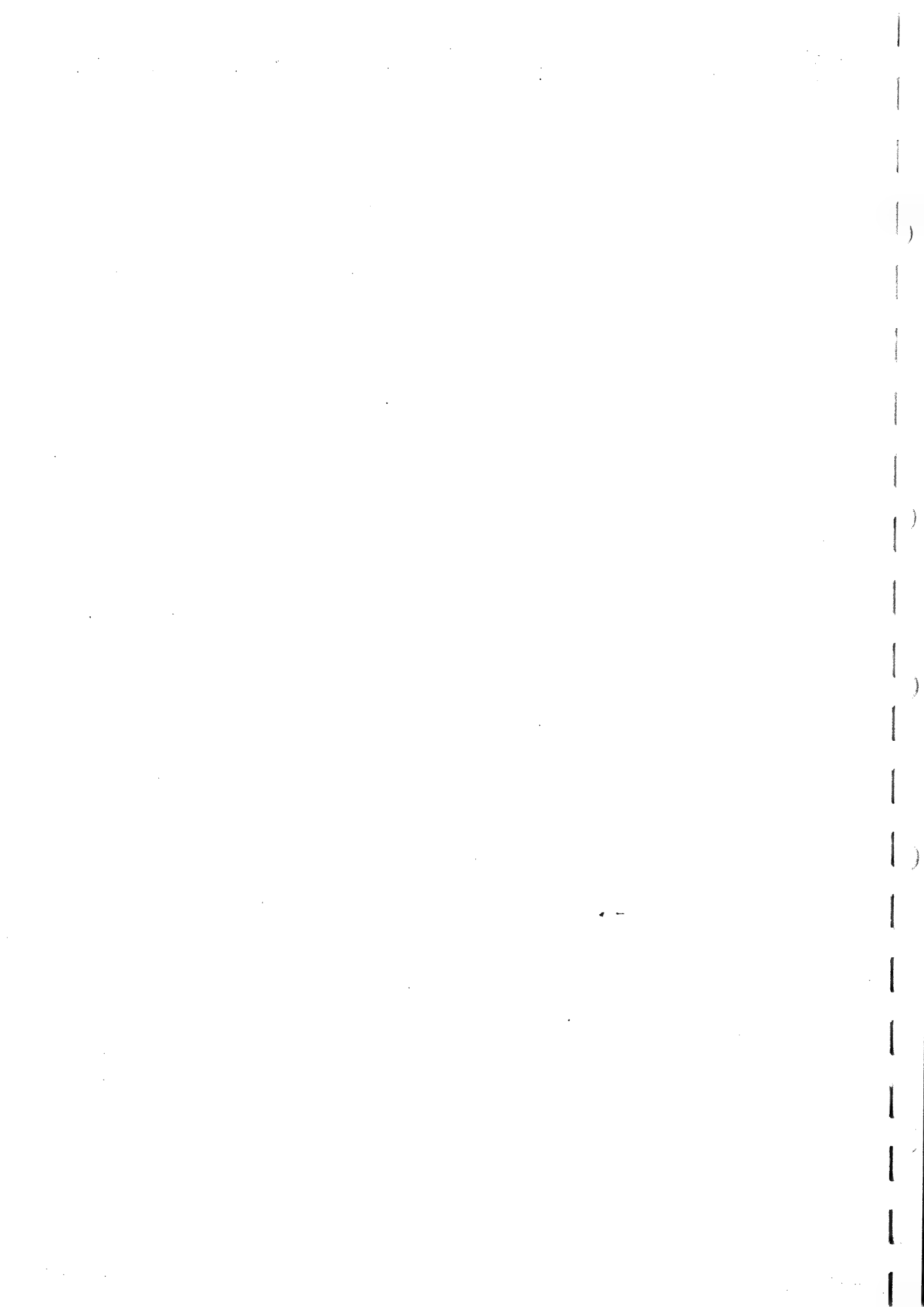
Hours of Use are recommendation. It may depend on temperature, humidity or dust.

Hours of Use are listed as the reference of maintenance. They do not mean guaranteed hours.

◎:These parts are included in Mech. Chassis Unit. Replacing Mech. Chassis Unit is recommended.

*1. The lubrication is necessary when replacing the Pinch Arm Unit.

△:This mark means cleaning is necessary. Detail cleaning procedures are written in Service Manual.



V201611
V19646

Order No. VSD9710SG601

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Countermeasure for Yellow Picture at Left Side of Monitor

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D800E/EN	3	VSD9708M606A/B	F7TKA0001

Board : Pre Process (VEP23278B)

Symptom : The left side of the picture on the monitor may be yellow.

Cause : The rising edge of the signal on the Pre Process circuit may be rounded at 30dB gain up by BLK step of CCD output.

Remedy : To prevent it, resistors R3016, R3216 and R3416 are changed from 1.5K Ω to 1K Ω on the foil side.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
R3016	ERJ3GEYJ152	ERJ3RBD102	M. RESISTOR CH 1/16W 1K	1	
R3216	ERJ3GEYJ152	ERJ3RBD102	M. RESISTOR CH 1/16W 1K	1	
R3416	ERJ3GEYJ152	ERJ3RBD102	M. RESISTOR CH 1/16W 1K	1	

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
R3016	SCM-9	F-5 (1/5)	CBA-3	C2 (F)
R3216	SCM-10	F-5 (2/5)	CBA-3	C2 (F)
R3416	SCM-11	F-5 (3/5)	CBA-3	C3 (F)

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V17728 V19646
V17728
V20161

Order No. VSD9710SB654

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Improvement of Black Level in View Finder

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN V17728 + V17729 56		VSD9606M501A/B	H7TKA0001
AJ-D800E/EN V19646 + V20161 6		VSD9708M606A/B	H7TKA0001

Board : EVF Video (VEP29022A)
H DEF (VEP29019A)

Symptom : Black level may be unstable in the View Finder.

Cause : Black level may fluctuate due to the signal APL change. As a result of it, it is not easy to adjust the Iris level.

Remedy : To be the black level stable, the following modification is performed.
After the modification as shown below, the following adjustments are required.

- 10-3. Sub Bright Adjustment
- 10-6. Size Adjustment
- 10-10. Focus Adjustment

< EVF Video >

- 1). Capacitor C9039 is changed from 50V/33pF to 50V/82pF on component the side as shown in figure 4.
- 2). Capacitor C9045 is changed from 50V/0.5pF to 50V/1pF on the foil side as shown in figure 5.
- 3). Capacitor C9046 is changed from 50V/82μF to 63V/68μF on the component side as shown in figure 4.
- 4). Resistor R9050 is changed from 1/16W, 0Ω to 1/10W, 1.5KΩ on the foil side as shown in figure 5.
- 5). Resistor R9051 is changed from 1/16W, 220KΩ to 1/10W, 120KΩ on the foil side as shown in figure 5.
- 6). Resistor R9052 is changed from 1/10W, 91KΩ to 1/10W, 100KΩ on the foil side as shown in figure 5.
- 7). Resistor R9056 is changed from 1/10W, 1KΩ to 1/10W, 680Ω on the component side as shown in figure 4.
- 8). Capacitor C9048 (16V/56μF) is deleted from the component side as shown in figures 1 and 4.
- 9). Diode D9006 (MA143) is deleted from the foil side as shown in figures 1 and 5.
- 10). Resistor R9070 (1/16W, 0Ω) is deleted from the foil side as shown in figures 1 and 5.
- 11). Capacitor C9059 (25V/0.1μF) is added to the pattern on the foil side as shown in figures 1 and 5.
- 12). Capacitor C9060 (0.1μF) is added between minus (-) side of C9048 and TP9003 and fixed it with glue on the component side as shown in figures 1 and 2.
- 13). Transistor Q9022 (2SC4181) is added to the pattern on the foil side as shown in figures 1 and 5.
- 14). Resistor R9074 (1/10W, 560Ω) is added to the pattern on the foil side as shown in figures 1 and 5.
- 15). Resistor R9097 (1/10W, 2.2KΩ) is added to the pattern on the foil side as shown in figures 1 and 5.
- 16). Resistor R9098 (1/10W, 9.1KΩ) is added to the pattern of R9096 on the foil side as shown in figures 1 and 3.
- 17). Resistor R9099 (1/4W, 100KΩ) is added between minus (-) side of C9048 and base of Q9016 on the foil side as shown in figures 1 and 3.
- 18). Before installation of R9099, the insulation sheet is attached under R9099 and insulation tube is covered to C9048 side of R9099 on the foil side as shown in figure 3.

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Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
C9039	ECUX1H330JCV	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	1	
C9045	ECUX1H0R5CCV	ECUX1H010CCV	C. CAPACITOR CH 50V 1P	1	
C9046	ECA1HFQ820	ECA1JFQ680	E. CAPACITOR 63V 68U	1	
C9048	ECA1CKF560	—	E. CAPACITOR 16V 56U	1→0	
C9059	—	ECUX1E104ZFV	C. CAPACITOR CH 25V 0.1U	0→1	
C9060	—	ECQV1104JM	P. CAPACITOR 0.1U	0→1	
D9006	MA143	—	DIODE	1→0	
Q9022	—	2SC4181	TRANSISTOR	0→1	
R9050	ERJ3GEY0R00	ERJ6RBD152	M. RESISTOR CH 1/10W 1.5K	1	
R9051	ERJ3GEYG224	ERJ6RED124	M. RESISTOR CH 1/10W 120K	1	
R9052	VRE0034E913	ERJ6RBD104	M. RESISTOR CH 1/10W 100K	1	
R9056	VRE0034E102	ERJ6RBD681	M. RESISTOR CH 1/10W 680	1	
R9070	ERJ3GEY0R00	—	M. RESISTOR CH 1/16W 0	1→0	
R9074	—	ERJ6RBD561	M. RESISTOR CH 1/10W 560	0→1	
R9097	—	ERJ6RBD222	M. RESISTOR CH 1/10W 2.2K	0→1	
R9098	—	ERJ6RBD912	M. RESISTOR CH 1/10W 9.1K	0→1	
R9099	—	ER0S2CKG1003	M. RESISTOR 1/4W 100K	0→1	

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
C9039	2-78	G-6	—	—
C9045	2-78	H-9	—	—
C9046	2-78	F-11	—	—
C9048	2-78	I-10	—	—
D9006	2-78	I-9	—	—
R9050	2-78	H-6	—	—
R9051	2-78	I-6	—	—
R9052	2-78	J-6	—	—
R9056	2-78	G-7	—	—
R9070	2-78	J-10	—	—

< H DEF >

- 1). Capacitor C9104 is changed from 50V/82 μ F to 63V/68 μ F on the component side as shown in figure 6.
- 2). Resistor R9108 is changed from 1/10W, 1M Ω to 1/10W, 0 Ω on the foil side as shown in figure 7
- 3). Resistor R9110 and R9111 are changed from 1/10W, 1M Ω to 1/10W, 470K Ω on the foil side as shown in figure 7.
- 4). Resistor R9113 is changed from 1/10W, 1.5M Ω to 1/10W, 470K Ω on the foil side as shown in figure 7.
- 5). Resistor R9114 is changed from 1/10W, 1.5M Ω to 1/10W, 680K Ω on the foil side as shown in figure 7.
- 6). Resistor R9115 is changed from 1/10W, 220K Ω to 1/10W, 820K Ω on the foil side as shown in figure 7.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
C9104	ECA1HFQ820	ECA1JFQ680	E. CAPACITOR 63V 68U	1	
R9108	ERJ6GEYJ105	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R9110, 11	ERJ6GEYJ105	ERJ6GEYJ474	M. RESISTOR CH 1/10W 470K	2	
R9113	ERJ6GEYJ155	ERJ6GEYJ474	M. RESISTOR CH 1/10W 470K	1	
R9114	ERJ6GEYJ155	ERJ6GEYJ684	M. RESISTOR CH 1/10W 680K	1	
R9115	ERJ6GEYJ224	ERJ6GEYJ823	M. RESISTOR CH 1/10W 82K	1	

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
C9104	2-77	E-5	—	—
R9108	2-77	C-8	—	—
R9110	2-77	D-8	—	—
R9111	2-77	D-8	—	—
R9113	2-77	D-8	—	—
R9114	2-77	E-8	—	—
R9115	2-77	F-8	—	—

EVF Video Schematic Diagram

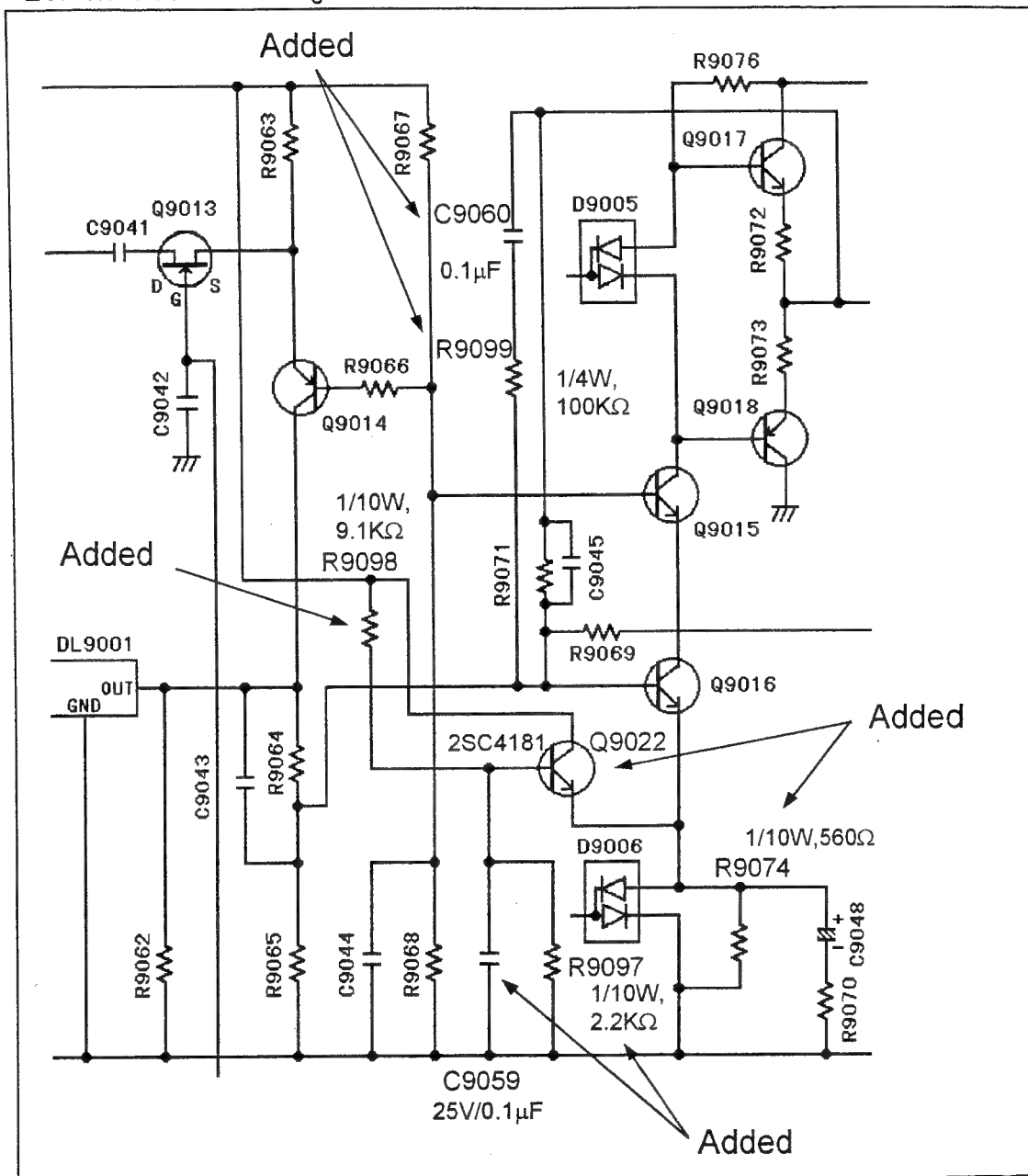


Fig. 1 Page 2-78

EVF Video P.C. Board (VEP29022A)

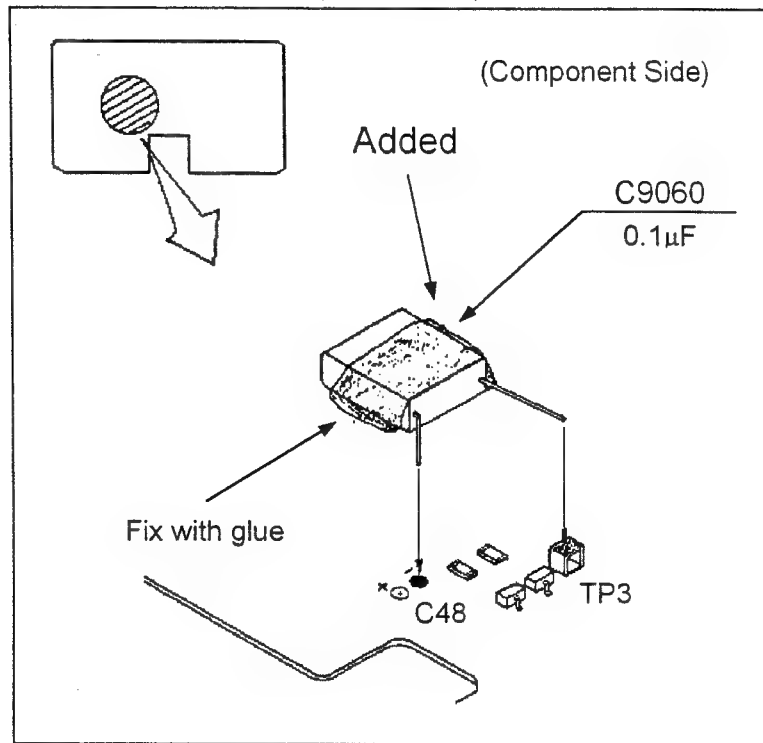


Fig. 2

EVF Video P.C. Board (VEP29022A)

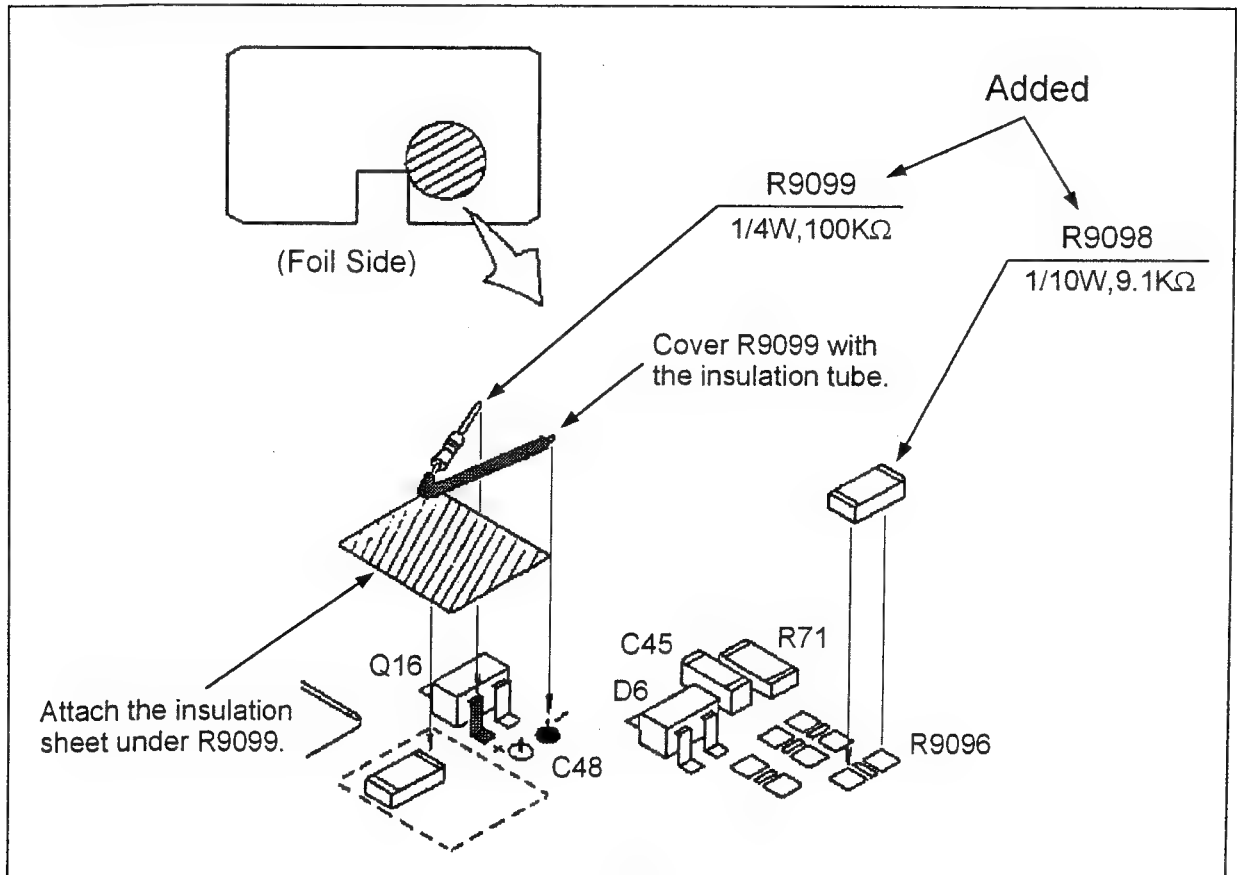


Fig. 3

EVF Video P.C. Board (VEP29022A)

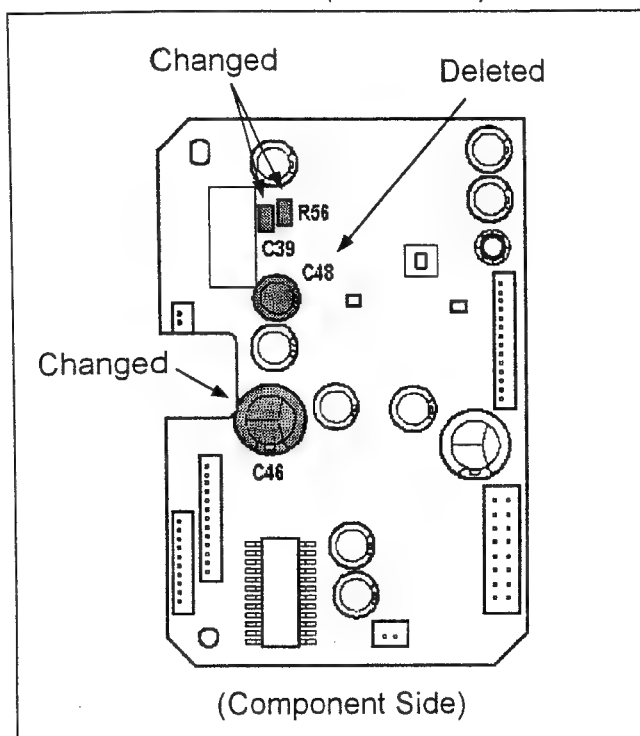


Fig. 4

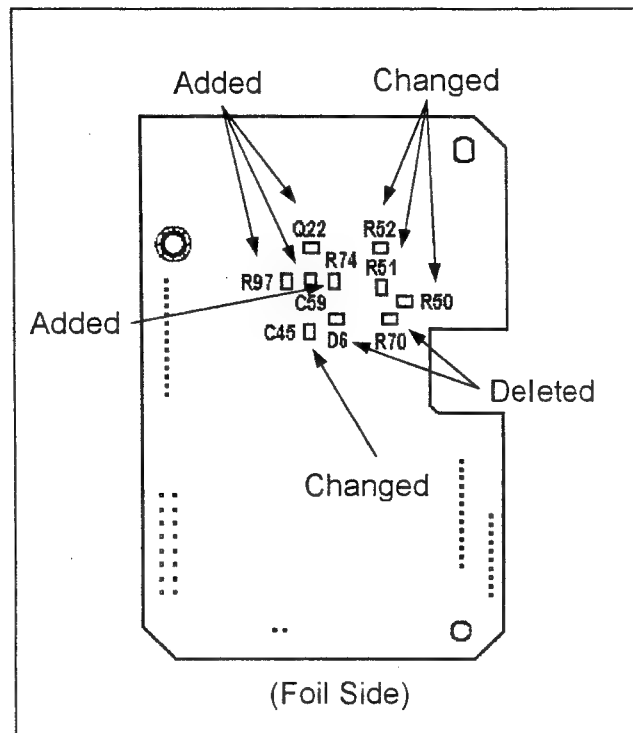


Fig. 5

H DEF P.C. Board (VEP29019A)

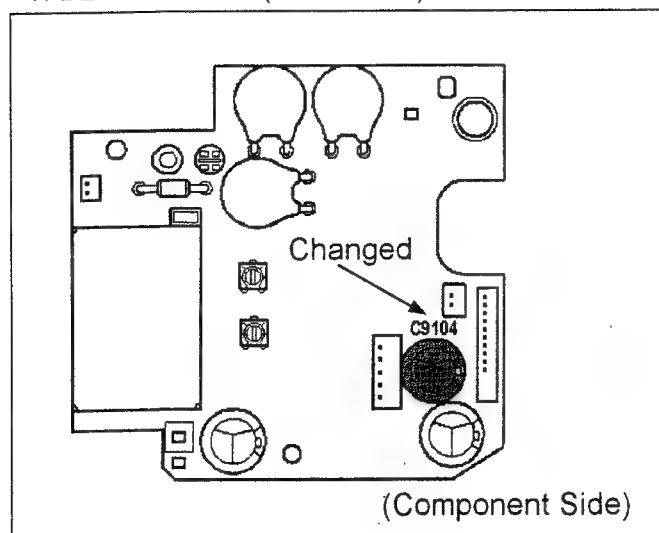


Fig. 6

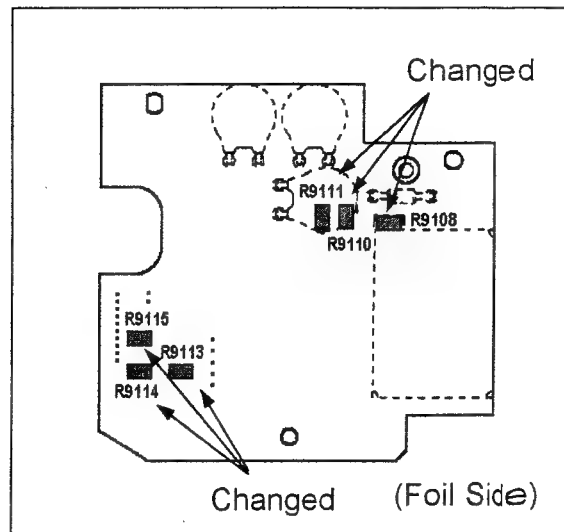


Fig. 7

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Improvement of Analog Switch Terminal

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN $\sqrt{17728} + \sqrt{17729} 57$		VSD9606M501A/B	G7TKA0001
AJ-D800E/EN $\sqrt{19646} + \sqrt{20161} 7$		VSD9708M606A/B	G7TKA0001

Board : Camera System Control (VEP26074C) - AJ-D700
 Camera System Control (VEP26074D) - AJ-D800

Symptom : D/A Converter may malfunction.

Cause : When the D/A Converter is not controlled, it may malfunction by the terminal connection of analog switch for D/A Converter control.

Remedy : To prevent it, the following modification is performed.

- 1). Resistor R3553 is deleted from the foil side.
- 2). Pins #1 and #5 of IC3520 are shorted on the foil side as shown in figures 1 and 2.
- 3). New resistors are covered with the tubes as shown in figures 2 and 3.
- 4). Resistor R3660 (1/4W, 100K Ω) is installed between pins #8 and #12 of IC3520 on the foil side as shown in figures 1 and 2.
- 5). Resistor R3661 (1/4W, 100K Ω) is installed between pins #12 and #16 of IC3521 on the foil side as shown in figures 1 and 3.
- 6). Resistor R3662 (1/4W, 100K Ω) is installed between pins #12 and #16 of IC3522 on the foil side as shown in figures 1 and 3.
- 7). Resistor R3663 (1/4W, 100K Ω) is installed between pins #12 and #16 of IC3523 on the foil side as shown in figures 1 and 3.

* Note * Install their bodies closely to ICs.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
R3553	ERJ3GEYJ473	—	M. RESISTOR CH 1/16W 47K	1→0	
R3660 - 63	—	ERDS2TJ104	C. RESISTOR 1/4W 100K	0→4	

AJ-D700

Ref. No.	Schematic Diagram		P.C.Board	
	Page	Area No.	Page	Area No.
R3553	2-16	G-8 (2/5)	3-5	B-1 (F)

AJ-D800

Ref. No.	Schematic Diagram		P.C.Board	
	Page	Area No.	Page	Area No.
R3553	SCM-17	B-7 (2/5)	CBA-5	B-1 (F)

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Camera System Control (2/5) Schematic Diagram

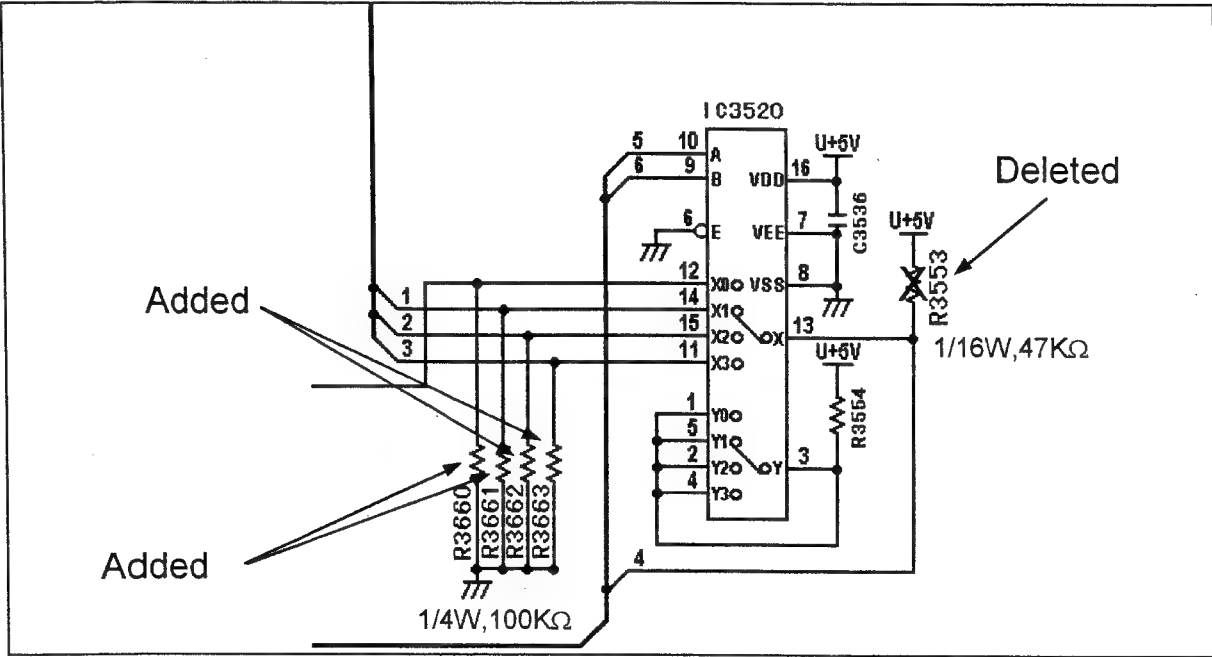


Fig. 1 Page 2-16 (G-7) / Page SCM-17 (A-6)

Camera System Control P.C. Board (VEP26074C/D)

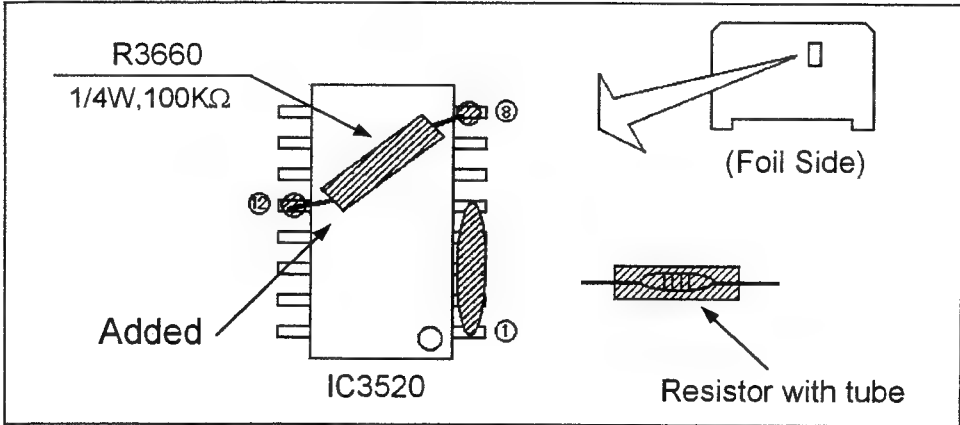


Fig. 2 Page 3-5 (B-1) / CBA-5 (B-1)

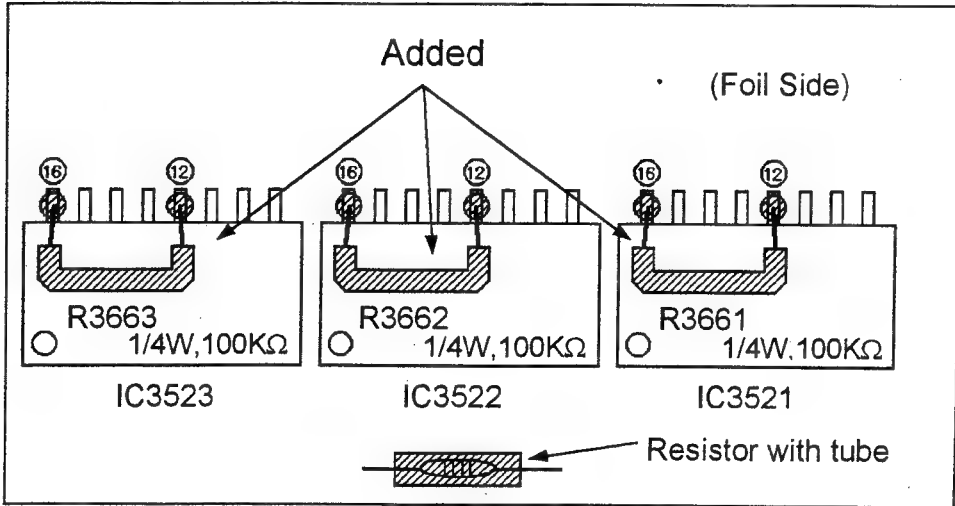


Fig. 3 Page 3-5 (B~C-1) / CBA-5 (B~C-1)

V20161
V19646

Order No. VSD9710SG602

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Improvement of γ Curve

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D800E/EN	8	VSD9708M606A/B	G7TKA0001

Board : Sync Sub (VEP20747A)

Symptom : γ curve may be shifted.

Cause : A/D clock buffer speed is late so that the ABB is malfunctioned. It results in γ curve shift.

Remedy : To prevent it, IC2 is changed from TC7S04FU to TC7SH04FU on the component side.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
IC2	TC7S04FU	TC7SH04FU	IC	1	

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
IC2	SCM-37	D-4	CBA-8	--

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Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Change of Screws

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN	59	VSD9606M501A/B	G7TKA0001
AJ-D800E/EN	9	VSD9708M606A/B	G7TKA0001

Board : Video I/F (VEP03D53A)
 VTR System Control (VEP06A22B) - AJ-D700
 VTR System Control (VEP06A22C) - AJ-D800
 Camera ENC (VEP23276B)
 Camera SYNC (VEP23277B) - AJ-D700
 Camera SYNC (VEP23446B) - AJ-D800
 Camera System Control (VEP26074C)
 Camera System Control (VEP26074D)

When the Shield Plate is fixed with the screws, the Shield Plate may be deformed. To prevent it, the screws are changed from XSN2+6 to XSB2+6.

Video I/F Board (VEP03D53A)

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
	XSN2+6	XSB2+6	SCREW	3	

VTR System Control Board (VEP06A22B/C)

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
	XSN2+6	XSB2+6	SCREW	2	

Camera ENC Board (VEP23276B)

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
	XSN2+6	XSB2+6	SCREW	2	

Camera SYNC Board (VEP23277B/VEP23446B)

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
	XSN2+6	XSB2+6	SCREW	2	

Camera System Control Board (VEP26074C/D)

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
	XSN2+6	XSB2+6	SCREW	2	

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Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Addition of Mode SW Cover

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D750E/EN	110	VSD9606M502A	I7TRB0001
AJ-D650E	81	VSD9612MJ01A	I7TRA0001
AJ-D640E	81	VSD9612MJ01A	I7TRA0001
AJ-LT75E	27	VSD9707M602A	I7TNA0001
AJ-D230E	21	VSD9708M605	I7TDA0001
AJ-D700E/EN	65	VSD9606M501A	I7TKA0001
AJ-D800E/EN	14	VSD9708M606A	I7TKA0001
AJ-D200HE	17	VSD9708M604	I7TKA0001

Mechanical Chassis Assembly (2)

Symptom : Mode SW may be malfunctioned.

Cause : Sharpened powder of the Solenoid Base may fall on the Mode SW. It results in Mode SW malfunction.

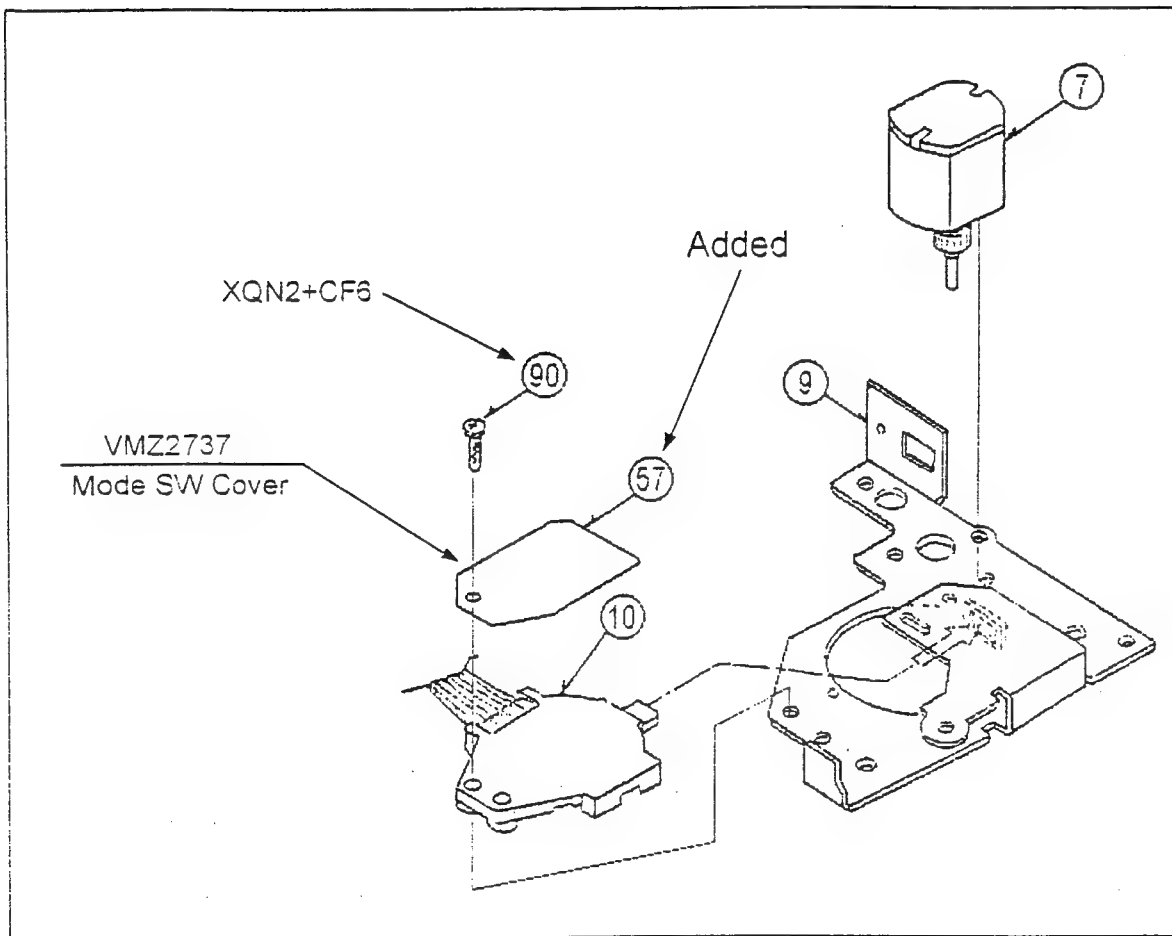
Remedy : To prevent it, the Mode SW Cover (VMZ2737) is added to the Mode SW unit as shown below.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
57	—	VMZ2737	MODE SW COVER	0→1	
90	—	XQN2+CF6	SCREW	0→1	Not listed in parts list

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Order No. VSD9711SG603

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Software Version Up Grades

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D800E/EN	16	VSD9708M606A/B	G7TKA0001

Board : Camera System Control (VEP26074D)
VTR System Control (VEP06A22C)

The following software has been up-dated to add the functioning of the VTR.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
IC3502	VSI2480B	VSI2480C	CAM SYSCON PROM Ver. 1.3	1	
IC3505	VSI2481B	VSI2481C	CAM SYSCON PROM Ver. 1.3	1	
IC6006	VSI2482B	VSI2482C	VTR SYSCON PROM Ver. 1.3	1	

< TEST MENU >

- * CAM SYSCON IC3502 : 1.3 FE1F * VTR SYSCON IC6006 : 1.3 DE1E
* CAM SYSCON IC3505 : 1.3 4736

< Additional Function >

1. < FUNCTION 2/5 Screen >

1. Synchro Scan Select function is changed.

When the S.SCAN mode of Function Menu 2/5 is ON, VF DISPLAY of Option Menu is SPECIAL and S.SCAN SW of Front is ON pressing the MODE CHECK SW, the status of the MODE CHECK is still displayed. It is improved. When the status of the MODE CHECK is displayed although the MODE CHECK SW is OFF, it is not displayed.

- FUNCTION 2/5 -	
→SUPER V	: FRM 1
FILTER INH	: OFF
SHOCKLESS AWB	: NORMAL
S.IRIS SW	: S.IRIS
S. SCAN SEL	: ON ←

Changed
from OFF

Item	Variable Range	VE Display	Remarks
S.SCAN SEL	ON OFF	ENG	Synchro scan ON/OFF switching ON : S.SCAN speed can be varied by the SUPER IRI S/MODE CHECK switch. OFF : Normal mode

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2. < OPTION Menu >

*** This Menu is only Engineer Security purpose, so it is not written on the Operating Instructions.**

This Menu is opened as following Setting.

Set the Menu SW pushing [SHIFT/ITEM] key and [PAGE SW] key simultaneously.

- OPTION MENU -	
→ ENG SECURITY	: OFF
TONE MODE	: NORMAL
METER SELECT	: CH1
VF DISPLAY	: NORMAL
TC OUT	: TCG
TCG SET	: RESET
BATT WARNING	: ON

↑ Added

Item	Variable Range	VF Display	Remarks
VF DISPLAY	NORMAL SPECIAL	ENG	NORMAL : Status which selected by the Menu is displayed in the View Finder. SPECIAL : Status which selected by the Menu is displayed in the View Finder only when the MODE CHECK SW is pressed.
TC OUT	TCG TCG/TCR	ENG	TCG : TCG is only output. TCG/TCR : TCR is output during V-V mode. TCG is output during E-E mode. * Note * When the TCR is output as it is, it is output adding two frames because it is two frames delay than picture.
TCG SET	RESET HOLD	ENG	RESET : REGEN is performed when the unit goes to REC mode after power is turned from OFF to ON in spite of TCG setting. HOLD : REGEN is not performed when the unit goes to REC mode after power is turned from OFF to ON with TCG setting
BATT WARNING	ON OFF	ENG	ON : When the ALARM, TALLY LED is ON during TAPE NEAR END mode, they are ON as it is. OFF : When the ALARM, TALLY LED is ON during TAPE NEAR END mode, they are OFF by MODE CHECK SW is ON.

- VF DISPLAY NORMAL/SPECIAL select function is introduced.
Status display in the View Finder is only displayed when the MODE CHECK SW is pressed.
- TCG/TCR Output function from TC OUT of the Rear Side Panel is introduced.
- TCG RESET/HOLDE select function is introduced.
When the unit goes to REC mode after the power is turned from OFF to ON with TCG setting, the REGEN is performed in spite of TCG setting. To prevent it, this function is added.
- Battery Warning ON/OFF select function is introduced.
When the ALARM and TALLY END are ON during TAPE NEAR END mode, they can be turned OFF by the MODE CHECK SW is ON.

2. < SET UP CARD Screen >

- The following Camera Menu data READ/WRITE ON/OFF select function is introduced.

- SET UP CARD -	
→READ (→CAM)	
WRITE (→CARD)	
CARD CONFIG.	
ID READ / WRITE : ON	
FUNCTION 1 - 2 R/W : ON	↕ Added
L/M/H SET R/W : ON	↕ Added
LEVEL 1 - 6 R/W : ON	↕ Added

Item	Variable Range	VF Display	Remarks
FUNC 1~2 R/W	ON OFF	USER ENG	READ/WRITE for FUNCTION1 and FUNCTION2 is switched ON or OFF when data is read from or written on the SET UP CARD. ON : READ/WRITE is enabled. OFF : READ/WRITE is disabled.
L/M/H SET R/W	ON OFF	USER ENG	READ/WRITE for LOW SETTING, MID SETTING and HIGH SETTING is switched ON or OFF when data is read from or written on the SET UP CARD. ON : READ/WRITE is enabled. OFF : READ/WRITE is disabled.
LEVEL 1~6 R/W	ON OFF	USER ENG	READ/WRITE for LEVEL 1/6, 2/6, 3/6, 4/6, 5/6 and 6/6 is switched ON or OFF when data is read from or written on the SET UP CARD. ON : READ/WRITE is enabled. OFF : READ/WRITE is disabled.

< Improvement of Performance >

1. VF TAPE REMAIN Display Change

When the tape remaining is more than 30 minutes, it can be displayed till 60 minutes in the View Finder as follows.

Current Display	F30, 30-25, ,,,,,, 5-0
New Display	F60, 60-55, ,,,,,, 5-0

* Note * TAPE REMAIN on the Front LCD is not changed. When the tape remaining is more than 30 minutes, it displays "FULL".

2. VF IRIS Display Change

As the IRIS Display in the View Finder falls on the one character of the Audio Level Meter, it is changed as follows.

Number of Character 5 numbers of character → **4 numbers of character**
 Character Change "CLOSE" → "___C" (Because only CLOSE is 5 numbers of characters)

3. Improvement of REC Stop during TC SLAVE/GENLOCK Mode

When the two units (AJ-D700) are set to Time Code Slave Lock and GENLOCK and then go to REC mode, the REC mode is suddenly released. It is improved.

4. Improvement of PHANTOM MIC Power ON/OFF

When the AUDIO IN SW (CH1/CH2) on the Front Panel is set to LINE, the PHANTOM MIC power is still turned ON. To prevent it, when the AUDIO IN SW (CH1/CH2) on the Front Panel is set to LINE, the PHANTOM MIC power is turned OFF.

5. ANTON BATT (DIGITAL) Voltage Detect Level Change

The time until UNDER CUT functions is too long after the BATT NEAR END WARNING of the ANTON BATT (DIGITAL) is displayed. It is improved.

6. Improvement of Filter Display

When the Optical filter is NG position, FLT4 is displayed. It is improved.

*** When PROM is replaced, PROM Socket Cover must be replaced to new one at the same time as follows.**

Installation Method of PROM Socket Cover

1. After replacement of PROM, install the PROM Socket Cover on the PROM Socket fitting A portion of PROM Socket Cover with B portion of PROM as shown in figures 1 and 2.
2. Confirm that concave portion of the PROM and (Δ) portion on the PROM Socket Cover is same direction.

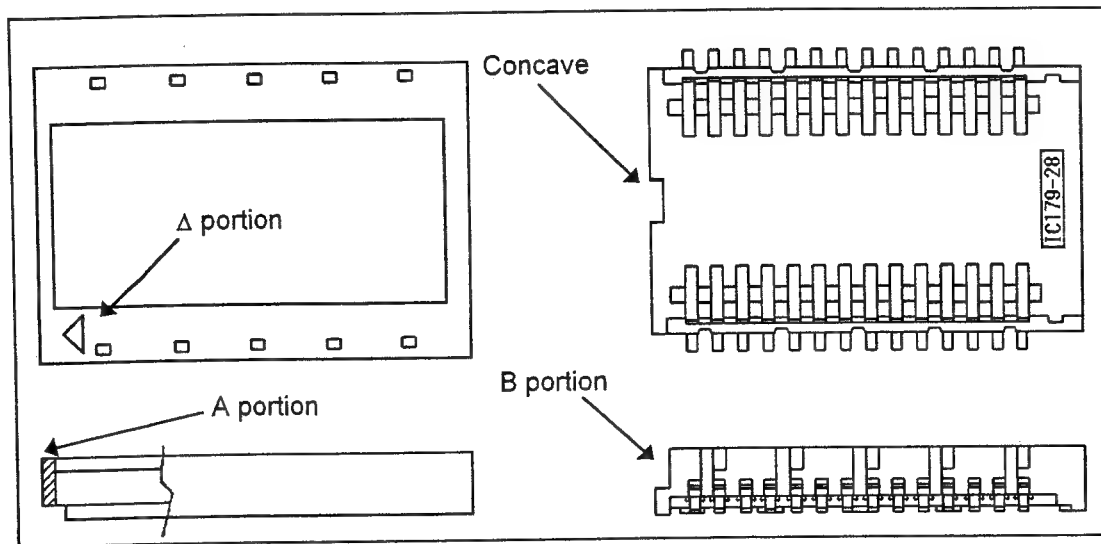


Fig. 1

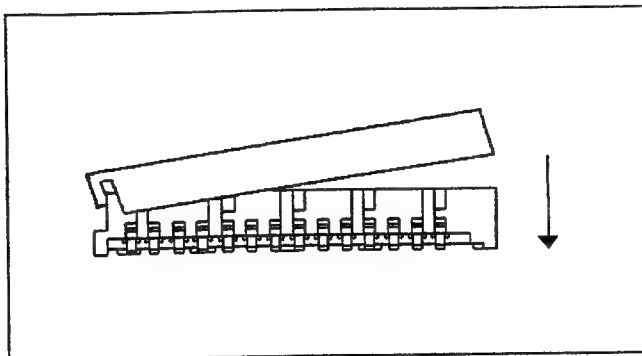


Fig. 2

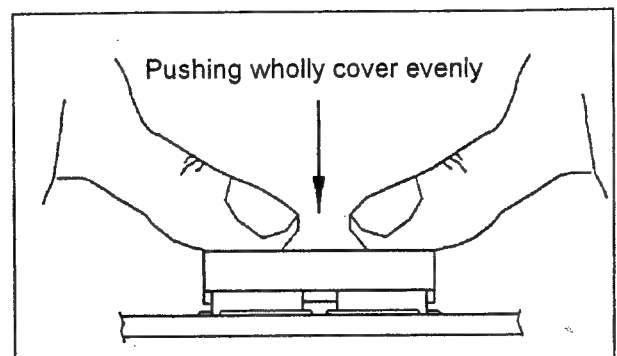


Fig. 3

3. Press the PROM Socket Cover pushing the wholly cover evenly as shown in figure 3.
4. After installation, check that the PROM Socket does not get out of the PROM Socket Cover more than 0.2mm as shown in figure 4.

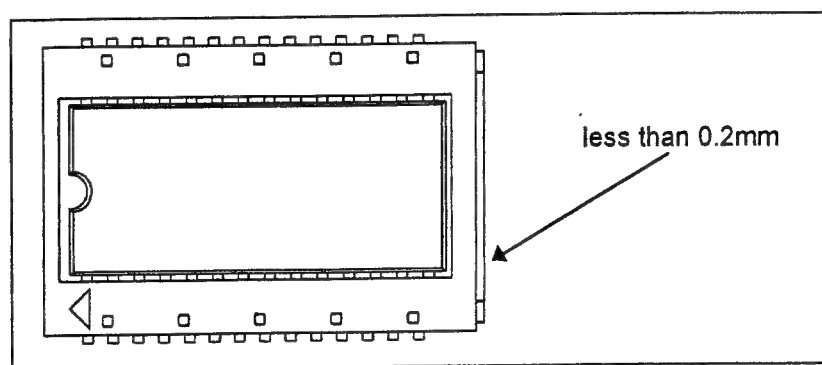


Fig. 4

- * When PROM is replaced, MENU setting is returned to factory setting. If the MENU setting is returned to user setting, MENU data is saved to IC CARD or EVR NV-RAM before replacement of PROM.

Replacement Method of PROM

1. Connect the EVR tool to AJ-D800 and set the ECU CONNECT on the SERVICE ADJ MENU to EVR, then insert the EVR connector to ECU connector (6P) on the Side Panel. After setting, turn the MENU OFF.
2. Execute the CAM_TOOL.EXE to start the EVR program.
3. Follow the displayed instructions until MAIN MENU is shown. (If the bar graph stops before 100% and MAIN MENU is not opened, turn the Power of I/F Box (VFKW1000AA) OFF and ON. Then execute the EVR program again.)
4. Select < 1. BACK UP (DOWN LOAD) RAM DATA > and execute it to back up the current user data.
5. Turn the power OFF and replace the PROM to new version.
6. Turn the Power ON and set the CAM/BAR SW to BAR mode.
7. Select < 6. E.V.R. DIRECT FUNCTIONS >.
8. Execute <1.CAMERA RESET No.1> (Press [F1] + [A]) to reset previous PROM parameter. Confirm that the color bar picture switched to the normal picture. If it is not, execute <1.CAMERA RESET No.1> (Press [F1] + [A]) again.
9. After executing CAMERA RESET, turn the power of AJ-D800 to OFF and then ON.
10. Select < 2. RESTORE (UP LOAD) RAM DATA > and execute it to upload the user data.
11. After upload the user data, turn the power of AJ-D800 to OFF and then ON again.

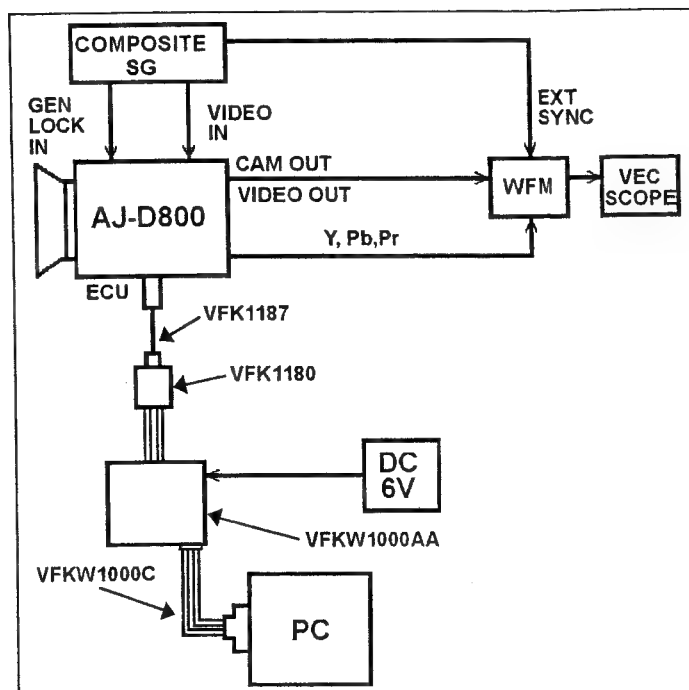


Fig. 5

MAIN MENU

1. BACK UP (DOWNLOAD) RAM DATA.
2. RESTORE (UPLOAD) RAM DATA.
3. PREPARATION OF ADJUSTMENT.
4. START ADJUSTMENT.
5. ELECTRICAL ADJUSTMENT.
6. E.V.R. DIRECT FUNCTIONS.
7. BACK UP (DOWNLOAD) RAM DATA.<OPTION>
8. RESTORE (UPLOAD) RAM DATA. <OPTION>

1. COMMAND INPUT FUNCTION

[E.V.R. FUNCTION]

COMMAND : [00]
DATA : 00
ADDRESS : 00

[MACRO FUNCTION]

1. CAMERA RESET No.1 [F1] [A]
 2. CAMERA RESET No.2 [F1] [B]
 3. VF OUT [F1] [C]
 4. MONITOR OUT LEVEL [F2] [0]
- ◀ Page Up : INC Page Down DE ▶

V20161V
V1964G

Order No. VSD9711SG604

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Reduction of Audio Input Line Noise after Power ON

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D800E/EN	17	VSD9708M606A/B	H7TKA0001

Board : Audio LCD (VEP04522B) – AJ-D800EN
Audio LCD (VEP04690A) – AJ-D800E

Symptom : Audio noise may appear at the Audio Input Line and the meter of the Mixer may swing fully when the Camera Power Supply is turned ON connected with the Mixer at the Rear Audio Input.

Cause : +48V for Phantom MIC is output momentarily and it results in Audio Input Line noise.

Remedy : To reduce the Audio Input Line noise, the following modification is performed.

- 1). Capacitor C4171 (16V/0.1 μ F) is put on the resistor R4318 and then soldered them on the foil side as shown in figures 1, 2 and 3.
- 2). Capacitor C4271 (16V/0.1 μ F) is put on the resistor R4418 and then soldered them on the foil side as shown in figures 1, 2 and 3.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
C4171	—	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	0→1	
C4271	—	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	0→1	

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Audio LCD (1/9) Schematic Diagram

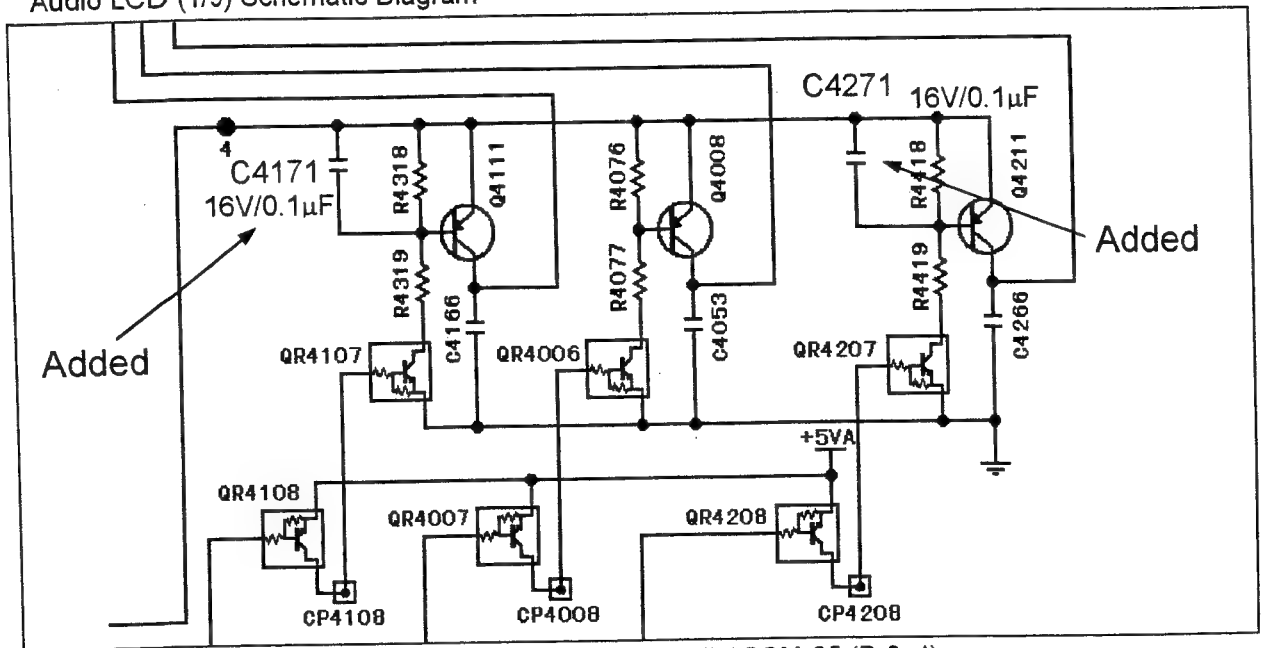


Fig. 1 Page SCM-76 (B-3-4) / SCM-85 (B-3-4)

Audio LCD P.C. Board (VEP04522B)

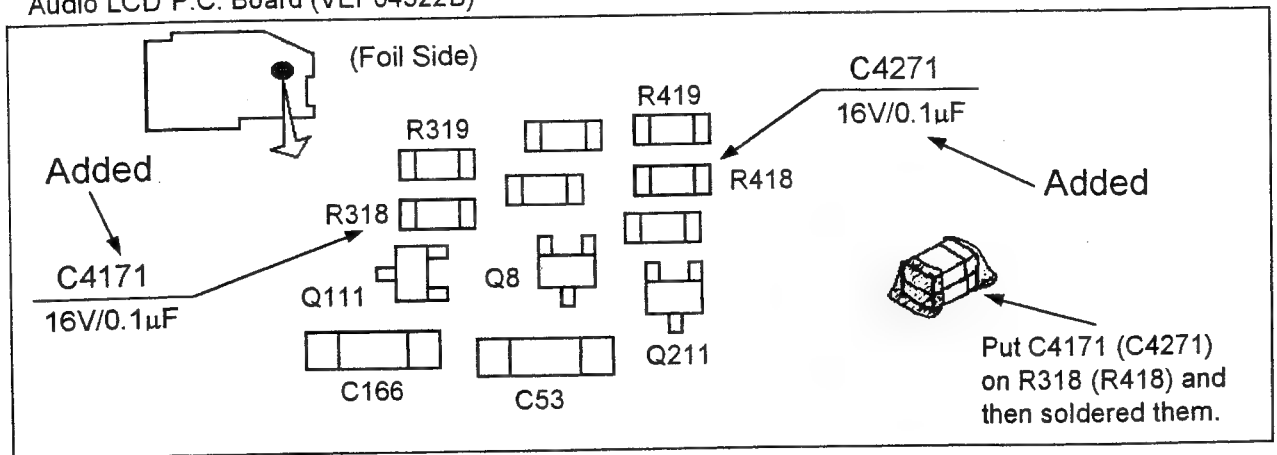


Fig. 2 Page CBA-15 (B-2)

Audio LCD P.C. Board (VEP04690A)

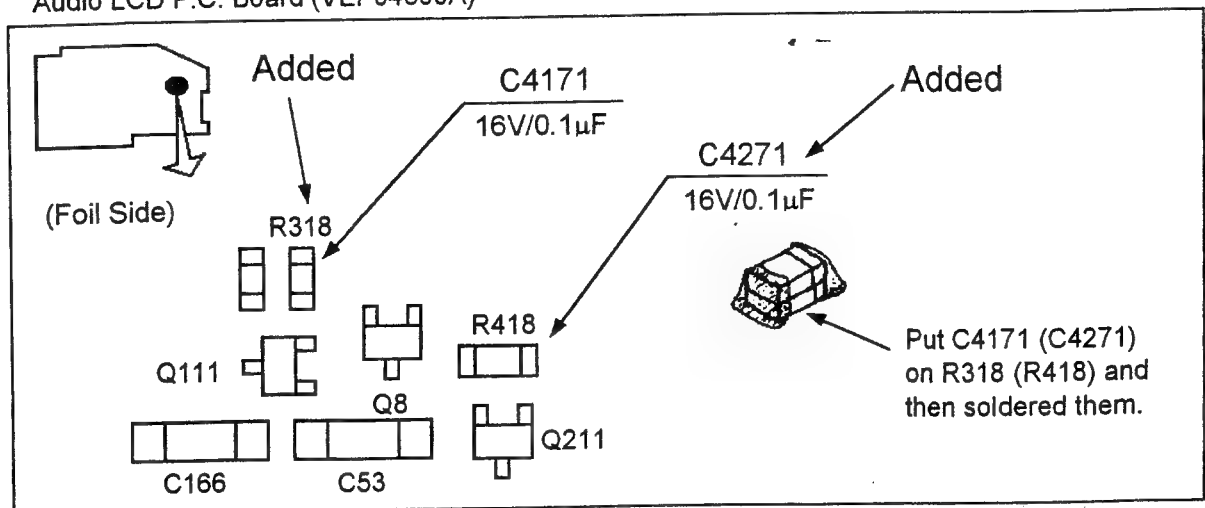


Fig. 3 Page CBA-14 (A-1)

VSD161 # 1031032 ✓

Order No. VSD9711SG605

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Reduction of Horizontal Noise during Electrical Shutter Mode

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D800E/EN	18	VSD9708M606A/B	I7TKA0001

Board : CCD (VEP20735B)

Symptom : Horizontal noise may appear on the monitor during Electrical Shutter mode.

Cause : Picture may be fluctuated by the shutter pulse of CCD during Electrical Shutter mode.

Remedy : To reduce the horizontal noise during Electrical Shutter mode, capacitors C111, C211 and C311 are changed from 50V/100pF to 50V/6800pF as shown below.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
C111	ECUX1H102JV	ECUX1H682KBV	C. CAPACITOR CH 50V 6800P	1	
C211	ECUX1H102JV	ECUX1H682KBV	C. CAPACITOR CH 50V 6800P	1	
C311	ECUX1H102JV	ECUX1H682KBV	C. CAPACITOR CH 50V 6800P	1	

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
C111	SCM-14	F-7	---	---
C211	SCM-14	D-7	---	---
C311	SCM-14	B-7	---	---

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Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Standardization of IC

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN <i>V17728 + V17729 69</i>		VSD9606M501A/B	K7TKA0001
AJ-D800E/EN <i>V19646 + V20161 20</i>		VSD9708M606A/B	K7TKA0001

Board : Servo (VEP02437B)

To standardize the parts, the microcomputer IC100 is changed from MN6755486H7H to MN6755486H8E on the component side.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
IC100	MN6755486H7H	MN6755486H8E	IC	1	

AJ-D700

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
C100	2-47	B~E-4~6	3-11	B-2 (C)

AJ-D800

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
C100	SCM-53	D~F-4~6	CBA-11	B-2 (C)

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2. Remove the P.C. Board.
 - 1). Remove the 3 screws from the connector side on the Bottom Panel.
 - 2). Remove 4 screws from the Front Panel.
 - 3). Remove 3 screws from the LED side on the Main P.C. Board.
 - 4). Remove the Main P.C. Board from the front upper direction.
3. Remove IC4 from the socket on the original Main P.C. Board and insert it to the new Main P.C. Board (VFK1158AKIT). It is difficult to remove IC4, so use a metal sharp sticker and remove the IC slowly.
4. Set the new Main P.C. Board (VFK1158AKIT) with IC4 as reverse procedures of removal.
5. The Top Panel can not be set, because the 14Pin Connector is added. If the Top Panel must be used, bend the side panel at the connector side or cut it.

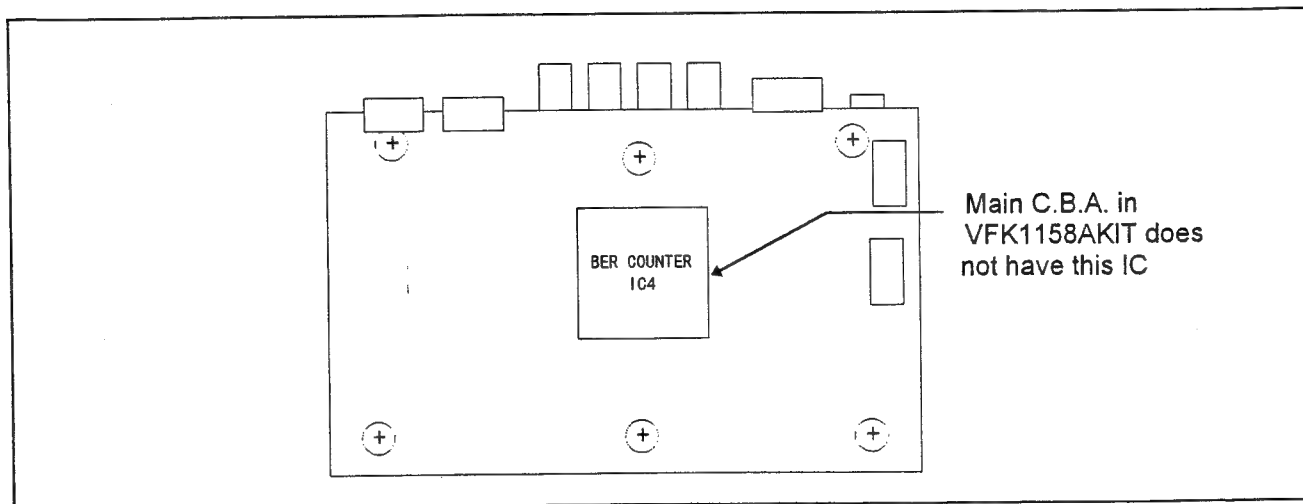


Fig. 2

2-2. VFK1163 (EQ Tool)

VFK1158A or modified VFK1158 (with VFK1158AKIT) needs to be supplied -5V from VFK1163 via pin #1 of 15Pin cable, so VFK1163 should be modified for this reason.

Since July, '97 production of VFK1163, the following modification has been introduced and mark "A" has been added on the serial number plate

2-2-1. Modification Procedure

1. Unscrew 4 screws and remove the Top Cover.
2. Add a jumper wire between pin #1 of P3 and (-) pole of capacitor C8 as shown below.
3. Install the Top Cover as reverse procedures of removal.

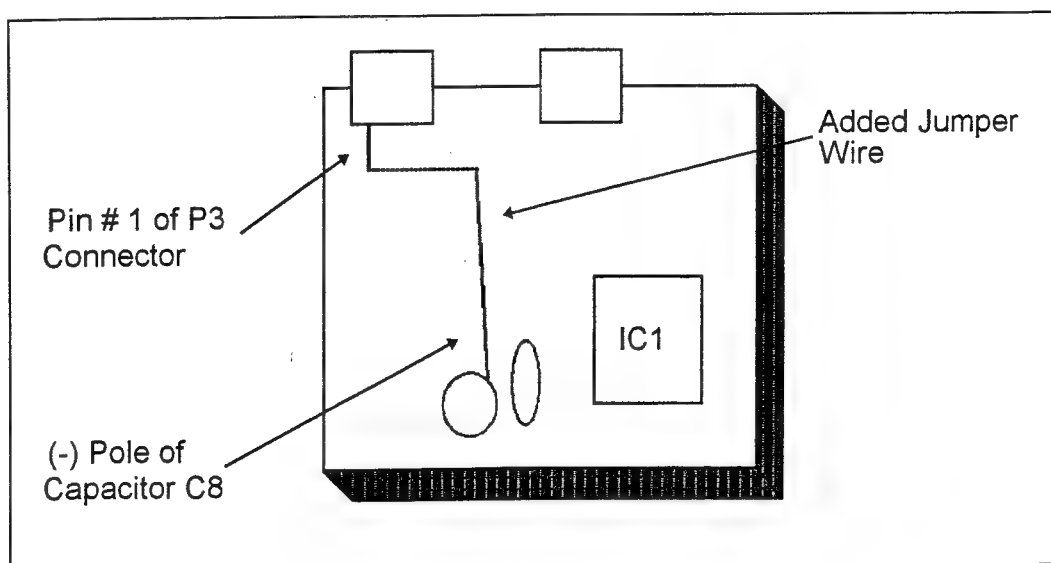


Fig. 3

3. Adjustment Procedures

8. RF Adjustment

8-1. System Hook UP and Setting

• System Hook UP

1. Connect the Camera with the Auto EQ/RF Adjustment System as shown Figure 1.
2. IC connection clip cable from the VFK1185 is not necessary (open).
3. Set the switches on the B.E.R. counter as follows.
ERROR COUNT SW : ON
CH SELECT SW : AUTO
(L/R : Any one)

• Menu Setting on Camera Recorder

1. Open the operation panel.
2. Press [SHIFT], [+] and [-] buttons, and set the MENU switch to the SET position.
3. Set the menu setting as follows:
PAGE : SERVICE ADJ.
ECU CONNECT : EVR
CONCEAL : OFF
INNER ECC : OFF
OUTER ECC : OFF
SERVO MODE : ATF
4. After the above menu setting, close the menu mode.

• Auto Adjustment System Normalization (Calibration)

The system normalization (calibration) should be performed when using the adjustment system at the first time (after the completion of the system hook up) or changing the A/D board, PC or EQ tool.
Also, we recommend to perform it regularly.
The auto adjustment system normalization procedure, please refer to paragraph 4. In this supplement service manual.

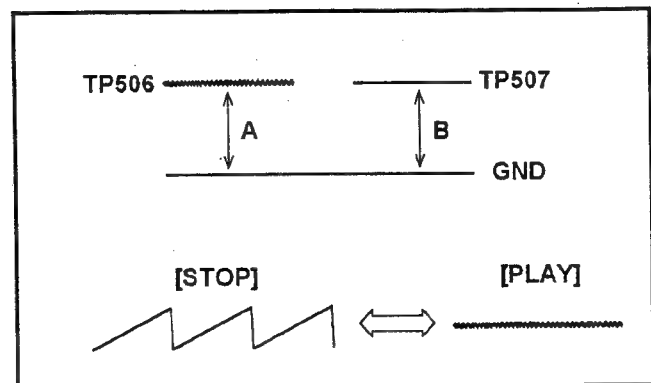
8-2. PLL VCO Adjustment

BOARD	RF
SPEC.	$A=B=2.0\pm0.1V$
TEST	TP506, TP507
ADJUST	EVR
MODE	PLAY
TAPE	Color Bar
M.EQ	Oscilloscope, EVR

EVR Setting

CMD : 02 DATA : 7A ADR : 0B

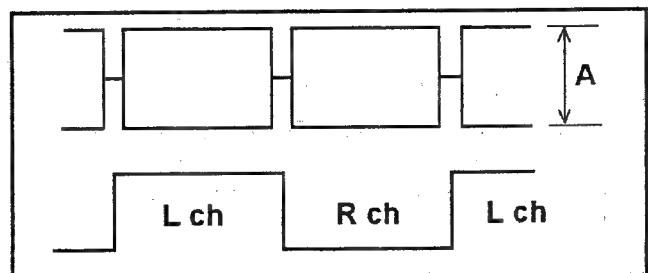
1. Monitor the waveform at TP506 and 507 in the DC mode.
2. Press the [→] or [←] key in the EVR so that the levels A and B are the same.



8-3. R/P Envelope Level Confirmation

BOARD	RF
SPEC.	$A \geq 70mV$
TEST	R/P ENV, HSW (B.E.R. Counter) (50Ω terminated)
MODE	PLAY
TAPE	Color Bar
M.EQ	Oscilloscope

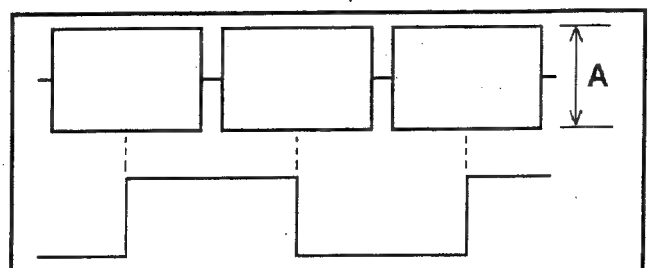
1. Confirm that the waveform is as flat.



8-4. PB Envelope Level Adjustment

BOARD	RF
SPEC.	$100\pm10mV$
TEST	PB ENV, HSW(B.E.R. Counter) (50Ω terminated)
ADJUST	VR400(PB L), VR401(PB R)
MODE	PLAY
TAPE	Color Bar
M.EQ	Oscilloscope

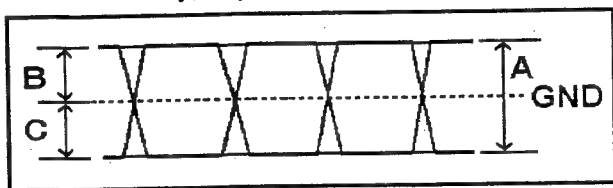
1. Confirm that the waveform is as shown in the figure below.
2. Adjust the VR400(L ch) and VR401(R ch) so that the level A is within the specification.



8-5. HSE Input Confirmation

BOARD	RF
TEST	TP201, TP300(Trieger)
ADJUST	VR200(DUTY)
MODE	REC
TAPE	Blank Tape
M.EQ	Oscilloscope

1. Set the oscilloscope to AC mode.
2. Monitor the TP201 and confirm that A is $1.3 \pm 0.1V$.
3. Confirm that B and C are the same.
4. If necessary, adjust the VR200 slightly.



8-6. PB Equalizer Adjustment(Auto)

Menu Setting

1. Open the operation panel.
2. Pressing [SHIFT], [+] and [-] buttons, set the MENU switch to the SET position.
3. Set the menu as follows:
PAGE : SERVICE ADJ.

ECU CONNECT :EVR
 CONCEAL :OFF
 INNER ECC :OFF
 OUTER ECC :OFF
 SERVO MODE :ATF

4. After the above setting, close the menu.

Auto Adjustment Software Boot UP

1. Copy the all files contained in floppy disk (VFK1160B) to a directory of hard disc drive. (ex. C:\DVCEQ)
2. Execute DVCRF.EXE file on DOS command prompt condition. (ex. "C:\DVCEQ\DVCRF")
3. Select (2) AJ-D700 in DVCPRO MODEL SELECT.
4. Select (1) NORMAL in PROGRAM SELECT.
5. Wait about 20 seconds for the parameter loading. To short cut this 20 seconds, confirm the power switch of the all equipment are turned ON and then press the "ENTER" key.
6. Personal Computer (PC) asks "Do you transfer BOOT PROGRAM ?" then once turn the power switch of the EVR I/F box OFF and ON, and then select the [Y].
7. PC asks whether any error has happened or not.

8. MAIN MENU is available.

F1 MENU

1. PB Adjustment
2. REC Adjustment
3. Result
4. File
5. Restart
6. End

9. Select 1.PB Adjustment.

10. Select whether downloading data from VTR or not.

11. Press F8 to select the AUTO.

12. Confirm that there is no tape in the VTR and press the [ENTER] key.

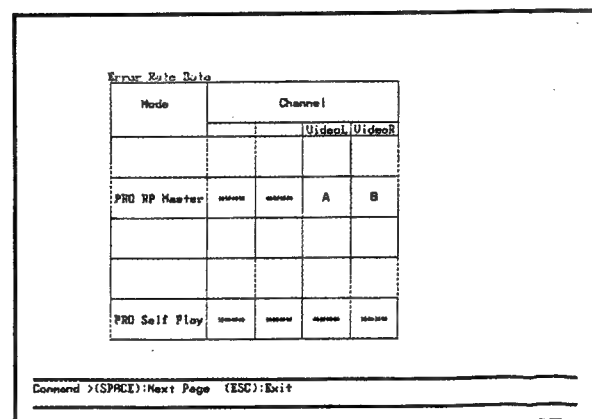
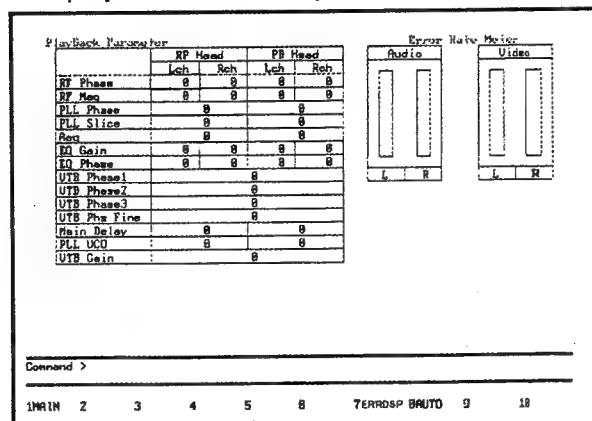
13. PC asks "Initial Adjust ?". Select the [Y].

14. Select 1. All Adjust in PB Auto Menu.

15. Insert the Alignment tape and play back the color bar portion according to the instruction on the display.

16. During the auto adjustment don't touch the VTR, TOOL and PC.

Please note that the audio error rate is not displayed in the auto adjustment.



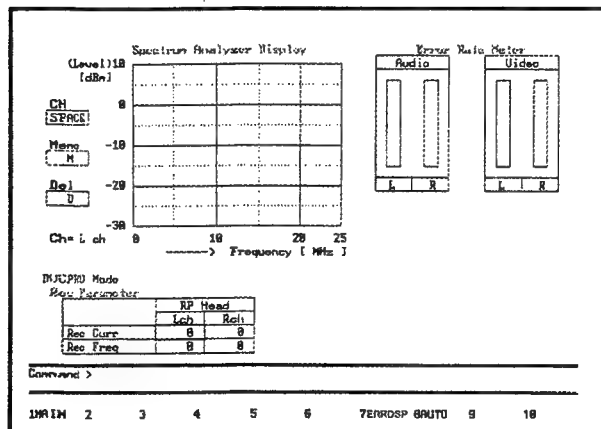
17. Adjustment may complete after 5-6 minutes.

18. Error rate is measured and displayed.

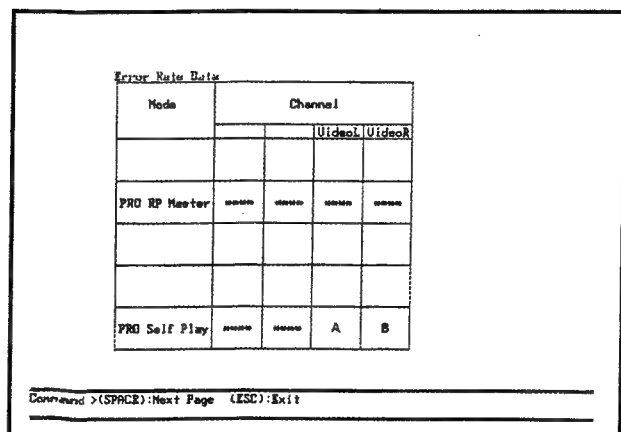
19. Confirm that the data A and B are green color. If there is any red color, try the same adjustment again after cleaning of the video head and tape transportation.

8-7. Rec. Curr. & Freq. Adjustment

1. Open the MAIN MENU according to the same procedure as the PB Equalizer Adjustment.
2. Select 2. REC Adjustment in the MAIN MENU.
3. PC asks whether download the VTR data from the VTR or not.
4. Select [Y] so that the VTR adjustment data are saved in to the PC.
5. Press F8 to select the AUTO.
6. Select 1.Adjust start in the sub menu.
7. Insert the alignment tape and play back the color bar portion according to the instruction on the display.
8. After memorizing the playback data, insert a blank tape and start a recording according to the instruction on the display.
9. During the adjustment, don't touch the VTR and PC adjustment system.
10. During the adjustment, audio error rate is not displayed.



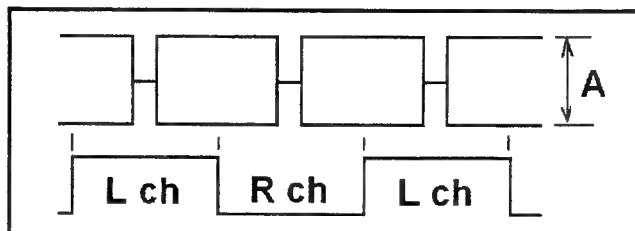
11. Rewind the recorded tape which was recorded on the blank tape and play back the recorded portion according to the instruction on the display.
12. The error rate is measured and displayed.
13. Confirm that the data A and B are green color.



8-8. Confidence PB Adjustment

BOARD	RF
SPEC.	100±10mV
TEST	PB ENV, HSW (B.E.R. Counter) (50Ω terminated)
ADJUST	VR400(PB L), VR401(PB R)
INPUT	Internal Color Bar
MODE	REC
TAPE	Blank Tape
M.EQ	Oscilloscope

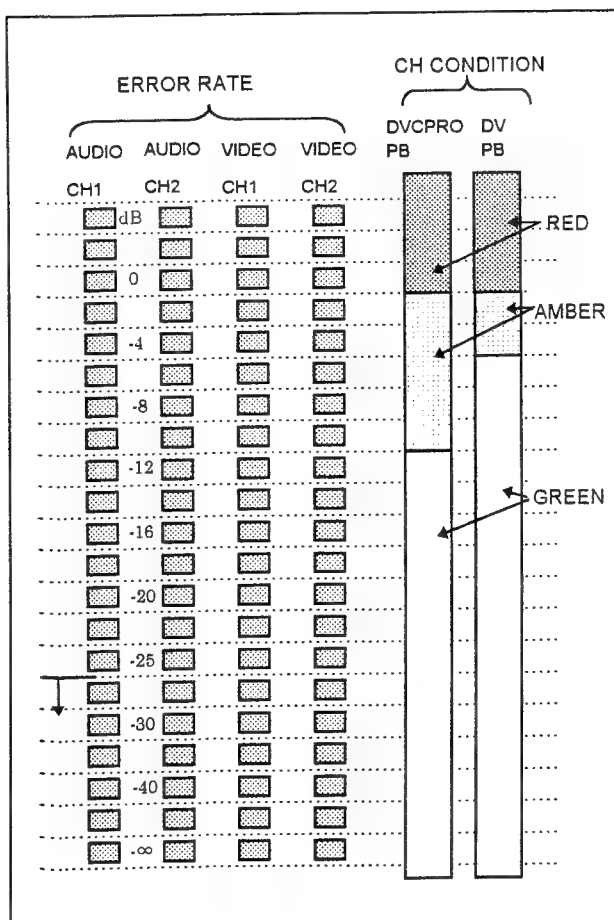
1. Place the unit in the confidence PB mode.
2. Adjust VR400 and 401 so that the level A is within the specification.



8-9. Final Confirmation

BOARD	RF
TEST	VIDEO OUT
INPUT	Internal Color Bar
MODE	REC, PLAY
M.EQ	B.E.R. Counter, Monitor TV

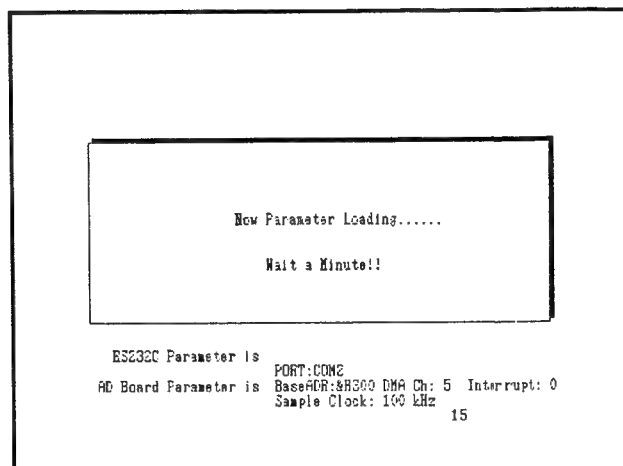
1. Record the internal color bar signal.
2. Play back the recorded portion.
3. Confirm that the error rate is less than 250 on the L and R channels.
4. Play back the recorded portion on a studio editing DVCPRO and confirm that the error rate is less than A as shown in the figure below..
5. If it is not less than A, readjust Rec Current and Frequency Response.
6. Set the menu as follows:
PAGE : SERVICE ADJ.
INNER ECC :ON
OUTER ECC :ON
7. Confirm that there is no error in the playback picture.



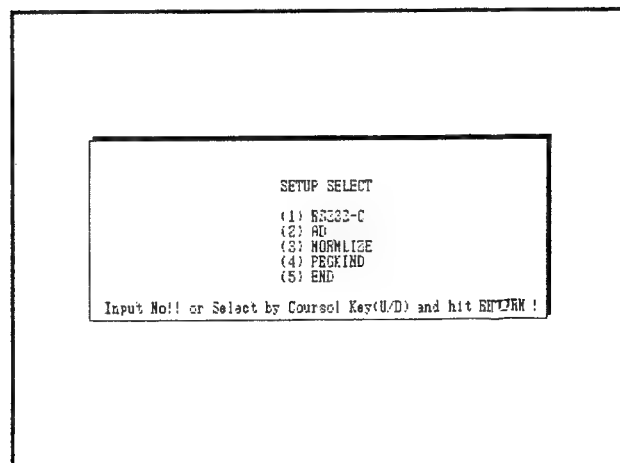
4. Important Notice

4-1. Auto Adjustment System Normalization (Calibration) Procedure

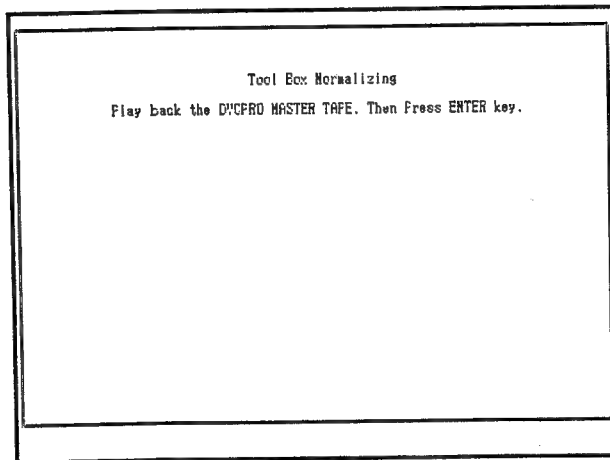
1. Boot up the auto adjustment system according paragraph 8-6.



2. During parameter count down, press the "F2" as shown in figure below.
3. Select "(3) NORMALIZE" when the display shows "SET UP SELECT" as shown the figure below.



4. When display shows "TOOL BOX NORMALIZING", play back the color bar portion of the alignment tape and press the ENTER key.



5. Wait for the completion of USER DATA measurement. When measurement is completed, the display shows the USER DATA and DEFAULT DATA at the upper side of the display.
6. Compare the USER DATA and DAFAULT DATA, and confirm that the difference is within ± 0.01 as shown in figure below.
7. The PC asks "NORMALIZING AGAIN?"

Tool Box Normalizing				
	5MHz BPF	10MHz BPF	20MHz BPF	APF
USER DATA	0.025150	0.032330	0.030150	0.011832
DEFAULT DATA	0.025166	0.032229	0.030109	0.011836
Normalizing Again ? (Y)/(N)				
Please Select (U)ser/(D)efault !!				

8. If value is within the specification, press the "N" key.
9. The PC asks "PLEASE SELECT (U)ser/(D)efault".
10. Press "U" to select the USER. This USER data becomes as the DEFAULT data from the next operation as shown in figure above.
11. If the value is not within the specification, confirm the connection of the adjustment system and quality of the alignment tape, and perform the above steps 7 and 8 again.
12. ("NORMALIZING AGAIN?", press the "Y")
13. If it is not improved after several times may be something wrong with the EQ tool.
14. When performing the Auto Adjustment System Normalization regularly under condition of the same combination of the PC, A/D Board and EQ Tool, the difference of USER DATA and DEFAULT DATA should be within ± 0.005 .

17728
17729
20161
13646

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Introduction of Auto EQ/RF Adjustment System

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN	70	VSD9606M501A/B	---
AJ-D800E/EN	21	VSD9708M606A/B	---

In order to increase serviceability of EQ/RF Adjustment, New Auto EQ/RF Adjustment System has been introduced.

1. Preparation

To perform the EQ/RF adjustment automatically, the following adjustment system should be prepared.

1-1. Special Tools

No.	Current Part No.	New Part No.	Tool Name	Remarks
1	VFK1163	VFK1163	EQ Adj. Tool	See Paragraph 2-2
2	VFK1158	VFK1158A	B.E.R. Counter	See Paragraph 2-1
3	VFK1160A	VFK1160B	Auto EQ Adj. Software	
4	VFK1162A	Same as current	EVR Software	
5	VFKW1000AA	Same as current	EVR I/F Box	
6	VFKW1000C	Same as current	EVR RS-232C Cable	
7	VFK1180	Same as current	EVR Sub I/F Board	
8	VFK1187	Same as current	EVR Cable	
9	VFK1185	Same as current	B.E.R. Cable	
10	VFM3580KM	Same as current	Alignment Tape (1)	NTSC System
11	VFM3680KM	Same as current	Alignment Tape (1)	PAL System
11	VFK1300	Same as current	A/D board	DAQ-12

 : Modification or new type is needed.

1-2. Measuring Equipment

No.	Name of Equipment	Remarks
1	Personal Computer	IBM PC/AT Compatible
2	Monitor TV	
3	DC Power Supplier	DC 6V
4	DC Power Supplier	DC 8.5-12V
5	Oscilloscope	More than 100MHz

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1-3. System Diagram

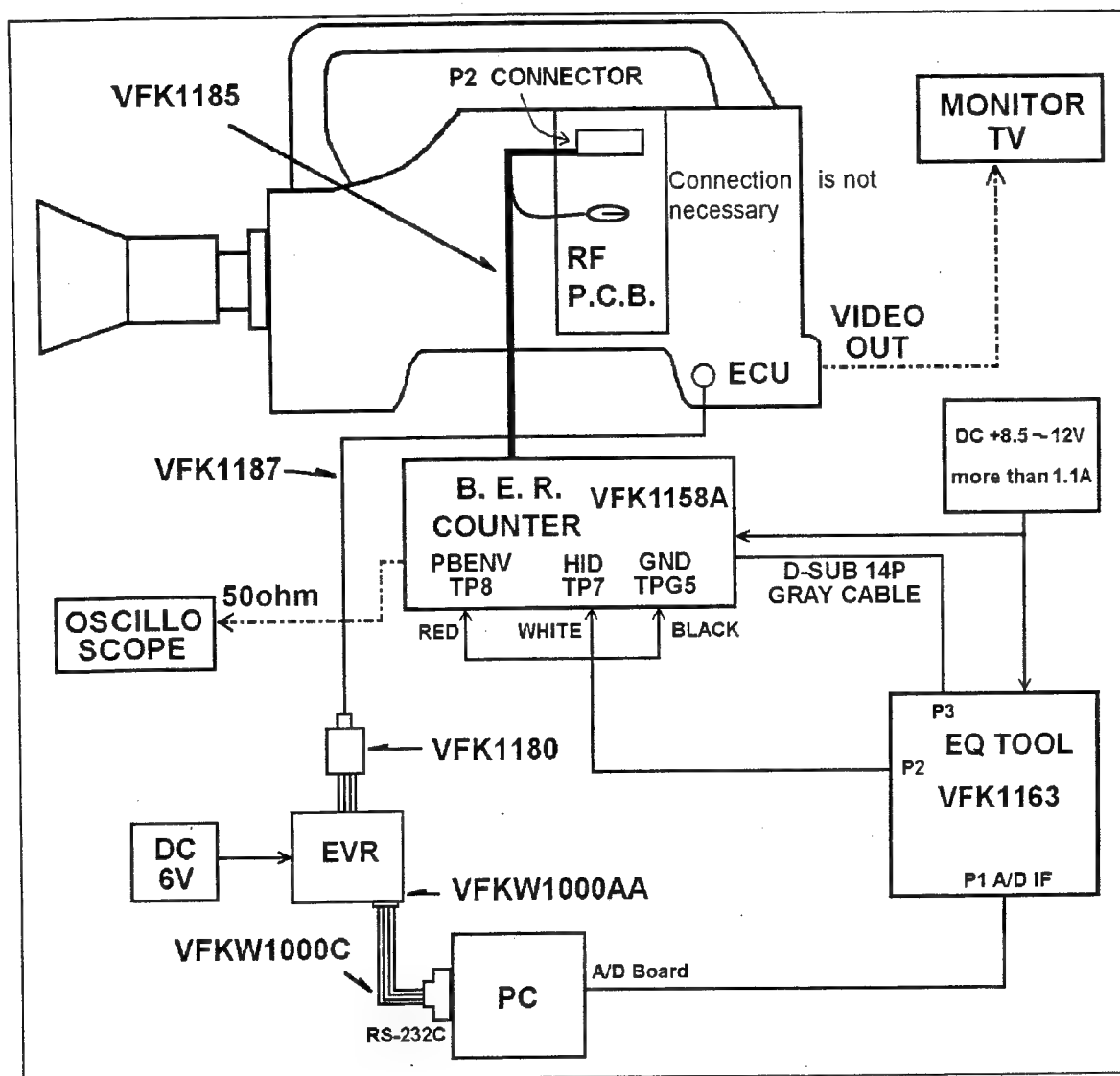


Fig. 1

2. Modification

2-1. VFK1158 (Current B.E.R. Counter)

When modifying the current B.E.R. Counter with modification kit VFK1158AKIT, the B.E.R. counter performs the same function as VFK1158A.

2-1-1. Modification Kit (VFK1158AKIT)

The modification kit consisted of the following items.

Part Name	Part No.	Quantity
Main P.C. Board	VFK1158KIT	1
Cable	---	1
Auto EQ Software	VFK1160B	1

2-1-2. Modification Procedure

1. Unscrew the 4 screws from the right and left panel (each 2 screws) and remove the Top Panel.

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Change of IC

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN V17728 + V1772974		VSD9606M501A/B	K7TKA0001
AJ-D800E/EN V13646 + V20161 22		VSD9708M606A/B	K7TKA0001

Board : EVF Video (VEP29022A)

Reason for Change

- ☐ The following part(s) has(have) been changed for serviceability improvement.
☒ The following part(s) has(have) been changed for productivity improvement.
☒ The following part(s) has(have) been changed for standardization.
☐ The following part(s) has (have) been changed for the safety regulation.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
IC9005	MC74HC164F	MC74HC164AF	IC	1	

AJ-D700

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
IC9005	2-86	G-9	—	—

AJ-D800

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
IC9005	SCM-101	G-9	—	—

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Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Reduction of Audio Input Line Noise after Power ON

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN <i>V17728 + V1772976</i>		VSD9606M501A/B	K7TKA0001
AJ-D800E/EN <i>V18646 + V2016125</i>		VSD9708M606A/B	K7TKA0001

Board : Audio LCD (VEP04522B)
Audio LCD (VEP04690A)

Symptom : Audio noise may appear at the Audio Input Line and the meter of the Mixer may swing fully when the Camera Power Supply is turned ON connected with the Mixer at the Rear Audio Input.

Cause : +48V for Phantom MIC is output momentarily and it results in Audio Input Line noise.

Remedy : To reduce the Audio Input Line noise, the following modification is performed.

1. The unit produced before Serial Number C8TKA****

- 1). LCD microcomputer IC4603 is changed from UPD75328G742 to UPD75328G769 on the component.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
IC4603	UPD75328G742	UPD75328G769	IC	1	

Audio LCD Board (VEP04522B) – AJ-D700E/EN

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
IC4603	2-75	C~D-3~5 (6/9)	3-17	E-2 (F)

Audio LCD Board (VEP04522B) – AJ-D800EN

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
IC4603	SCM-81	C~D-3~5 (6/9)	CBA-15	E-2 (F)

Audio LCD Board (VEP04690A) – AJ-D800E

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
IC4603	SCM-90	C~D-3~5 (6/9)	CBA-14	E-2 (F)

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2. The unit produced after Serial Number C8TKA****

- 1). LCD microcomputer IC4603 is changed from UPD75328G742 to UPD75328G769 on the component.
- 2). Capacitors C4171 and C4271 (16V/0.1μF) are not installed. (Please refer to the Technical Bulletin No. VSD9710SB660 and VSD9711SG604)

*** Note *** If the LCD IC has been replaced to new one and the capacitors C4171 and C4271 have been installed, there is no affect to operate the unit. So, it is not necessary to remove the capacitors.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
C4171	ECUX1C104KBV	—	C. CAPACITOR CH 16V 0.1U	1→0	
C4271	ECUX1C104KBV	—	C. CAPACITOR CH 16V 0.1U	1→0	
IC4603	UPD75328G742	UPD75328G769	IC	1	

Audio LCD Board (VEP04522B) – AJ-D700E/EN

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
C4171	2-70	G-3 (1/9)	3-17	B-2 (F)
C4271	2-70	G-4 (1/9)	3-17	B-2 (F)
IC4603	2-75	C~D-3~5 (6/9)	3-17	E-2 (F)

Audio LCD Board (VEP04522B) – AJ-D800EN

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
C4171	SCM-76	B-3 (1/9)	CBA-15	B-2 (F)
C4271	SCM-76	B-4 (1/9)	CBA-15	B-2 (F)
IC4603	SCM-81	C~D-3~5 (6/9)	CBA-15	E-2 (F)

Audio LCD Board (VEP04690A) – AJ-D800E

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
C4171	SCM-85	B-3 (1/9)	CBA-14	A-1 (F)
C4271	SCM-85	B-4 (1/9)	CBA-14	A-1 (F)
IC4603	SCM-90	C~D-3~5 (6/9)	CBA-14	E-2 (F)

V2016AJ
V19646

Order No. VSD9804SG608

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Software Version Up Grade

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D800E/EN	26	VSD9708M606A/B	A8TKA0001

Board : Camera System Control (VEP26074D)

The following software has been up-dated to add the functioning of the VTR.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
IC3502	VSI2480C	VSI2480D	CAM.SYSCON PROM Ver. 1.4	1	

< TEST MENU >

* CAM SYSCON IC3502 : 1.4 F405 VTR SYSCON IC6006 : 1.3 DE1E
CAM SYSCON IC3505 : 1.3 4736

< Improvement of Performance >

- Noise may appear on the upper side of the picture when the Electronic Shutter speed is selected 1/1000 or 1/2000. It is improved.

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Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Countermeasure for Over Current to DC OUT Protect Circuit

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D800E/EN	28	VSD9708M606A/B	C8TKA0001

Board : Rear Jack (VEP01786A)

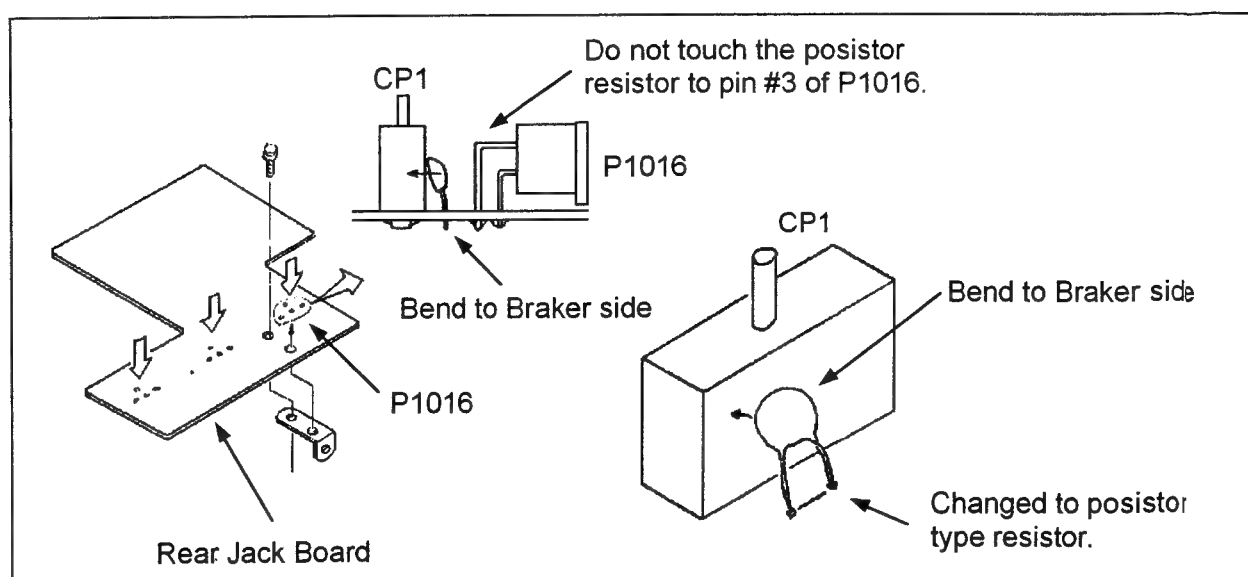
Symptom : Resistor for the DC Output Protection may be opened when using AJ-D700 connected with the wireless receiver.

Cause : Due to the over current for the DC OUT Protect resistor.

Remedy : To prevent it, resistor R1015 is changed from carbon type to posistor type as shown below.

- 1). Remove the carbon type resistor R1015 from the component side.
- 2). Install the posistor type resistor R1015 to the removing portion of it.
- 3). Bend R1015 to the Braker side (CP1) so as not to touch R1015 to pin #3 of P1016 as shown in figure 1.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
R1015	ERDS2TJ4R7	VRT01512R2	POSISTOR 2.2	1	



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Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Reduction of Audio Pop Noise

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN V17728 + V17729	79	VSD9606M501A/B	C8TKA0001
AJ-D800E/EN V19646 + V25161	29	VSD9708M606A/B	C8TKA0001

Board : Video Main (VEP03B96B)

Symptom : Audio pop noise may occur when the tape which is recorded by AJ-D700 is played back with AJ-D750.

Cause : When the power is turned ON and then OFF, the phase of audio frame pulse and audio clock is not fixed. Then latch timing failure may occur in the LSI and audio sample number in 1 frame becomes irregular. It results in audio pop noise.

Remedy : To reduce the audio pop noise, the following modification is performed.

- 1). Remove the leg of pin #13 of IC33 on the component side as shown in figures 1 and 3.
- 2). Connect a jumper wire between pin #12 of IC33 on the component side and through the hole and the CTP land (near pin #9 of IC14) on the foil side as shown in figures 1, 2, 3 and 4.

Video Main P.C. Board (VEP03B96B)

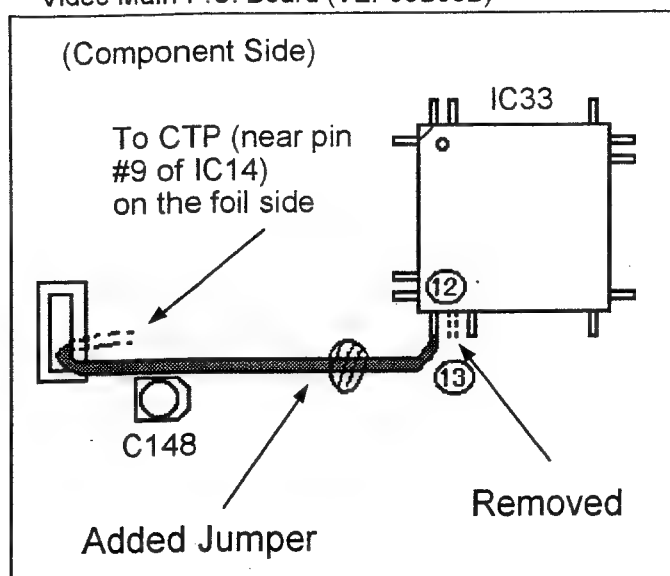


Fig. 1 Page 3-12 (B-2) / CBA-12 (B-2)

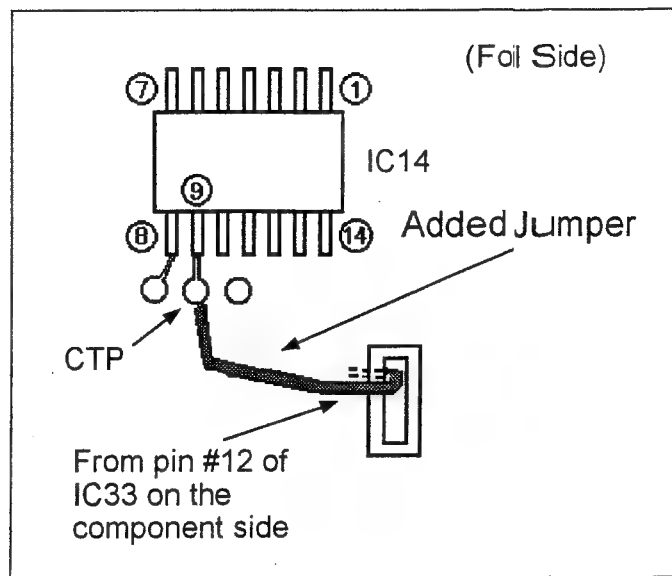


Fig. 2 Page 3-12 (C-2) / CBA-12 (C-2)

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Video Main (6/7) Schematic Diagram

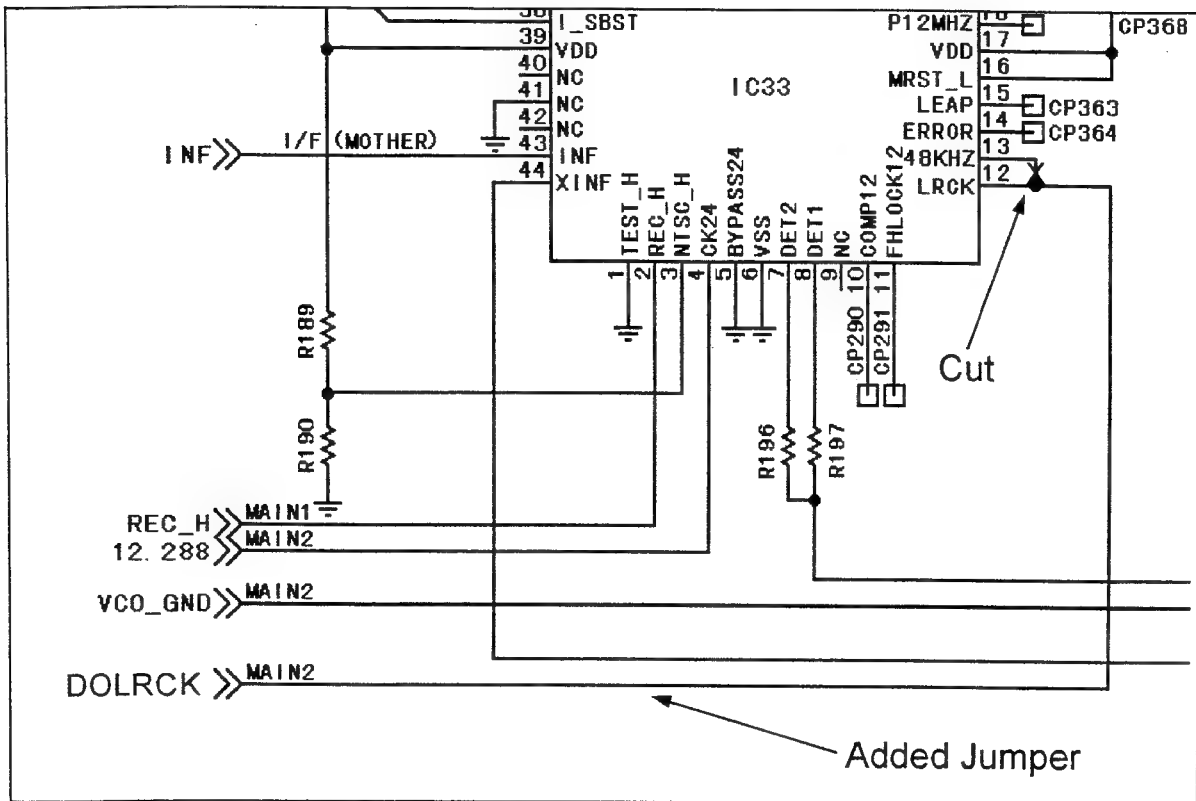


Fig. 3 Page 2-66 (F-2~5) / SCM-72 (A-2~5)

Video Main (2/7) Schematic Diagram

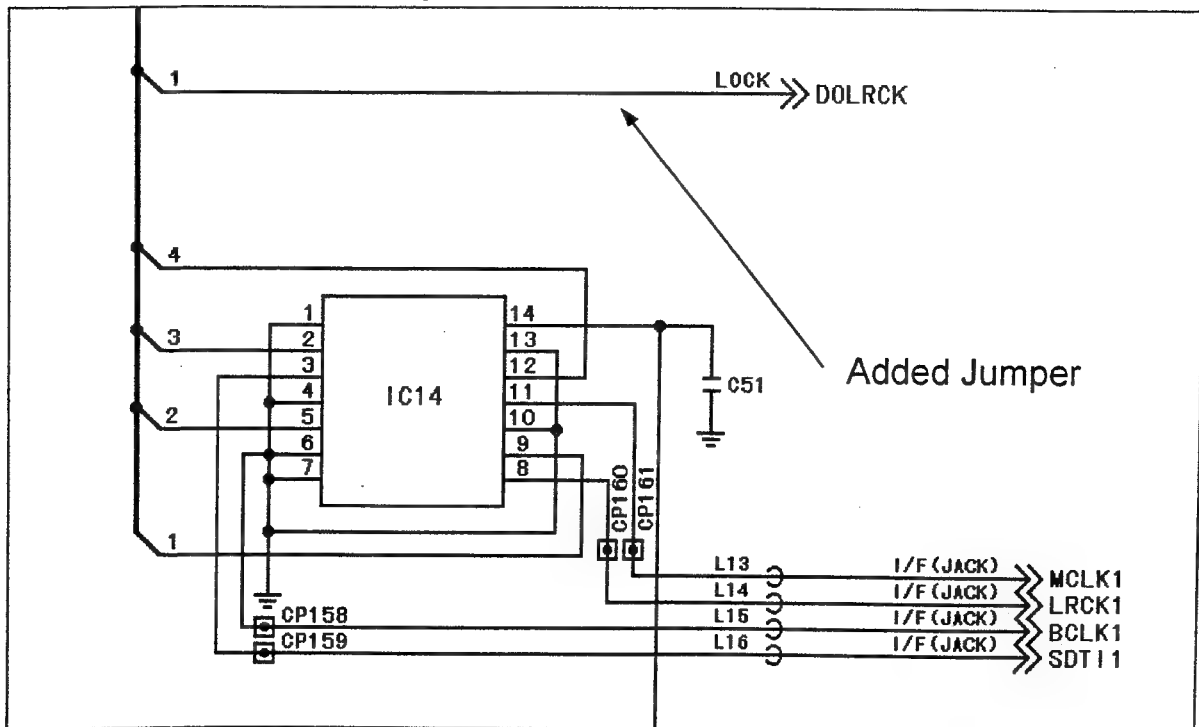


Fig. 4 Page 2-62 (F-9) / SCM-68 (I-13)

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Improvement of Pinch Roller

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN	92	VSD9606M501A	C8TKA0001
AJ-D800E/EN	52	VSD9708M606A	C8TKA0001

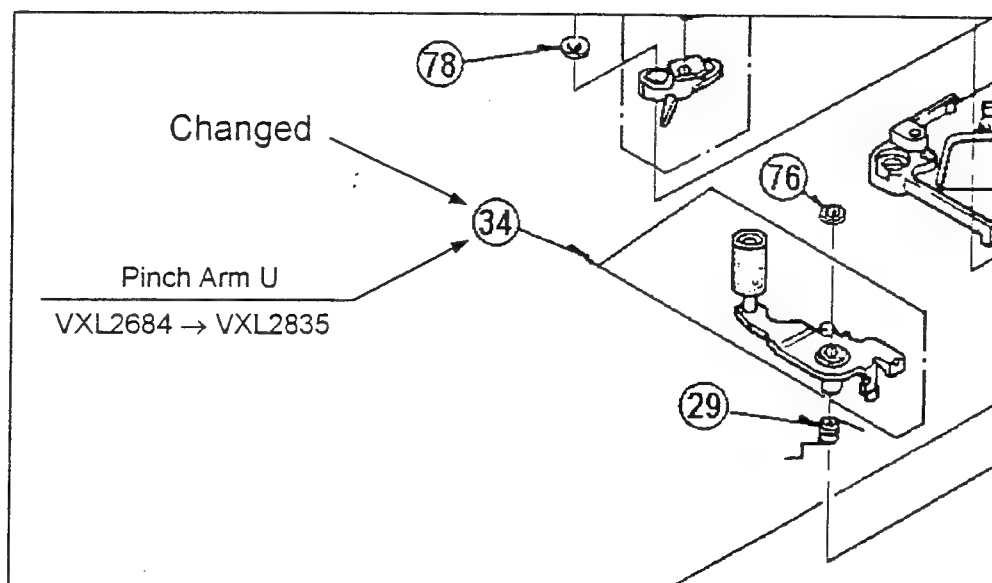
Mechanical Chassis Assembly (2)

Symptom : Pinch Roller may be cracked.

Cause : Due to the lack of plasticizer from the Pinch Roller rubber and atmosphere. (Ozone) It results in Pinch Roller crack.

Remedy : To prevent it, the Pinch Arm Unit is changed from VXL2684 to VXL2835 as shown below.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
34	VXL2684	VXL2835	PINCH ARM U	1	



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Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Improvement of Main Cam Arm Unit

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN	98	VSD9606M501A	D8TKA0001
AJ-D800E/EN	58	VSD9708M606A	D8TKA0001

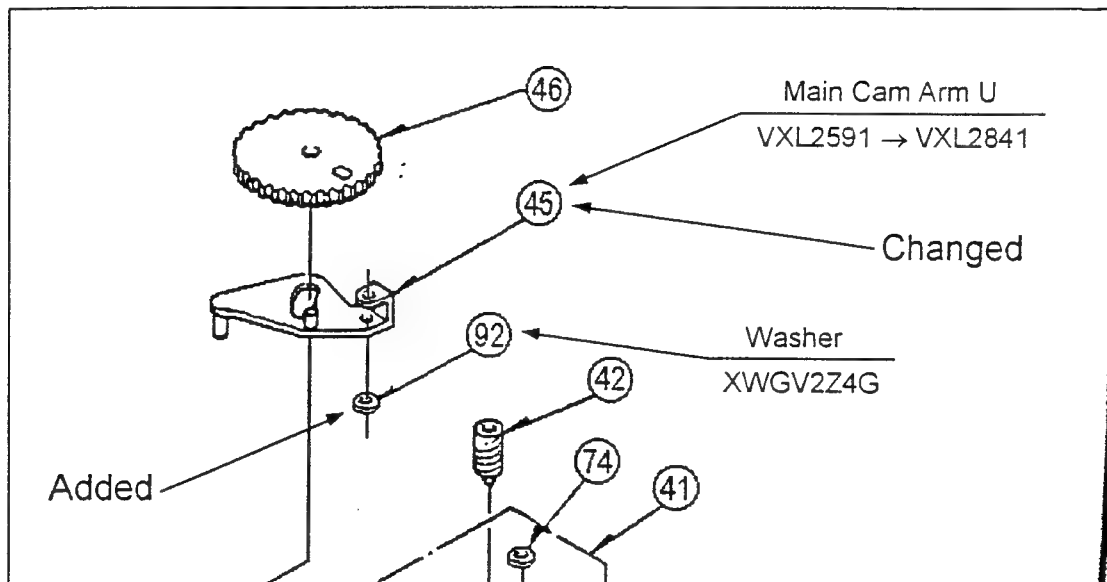
Mechanical Chassis Assembly (2)

Symptom : U-shaped portion of the Main Cam Arm Unit may be broken when the loading is repeated.

Cause : Due to the lack of material strength.

Remedy : To prevent it, the Main Cam Arm Unit is changed from VXL2591 to VXL2841 and the washer (XWGV2Z4G) is added under the Main Cam Arm Unit as shown below.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
45	VXL2591	VXL2841	MAIN CAM ARM U	1	
92	—	XWGV2Z4G	WASHER	0→1	



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1038021# V17728 + V17729
1031032# V20161 + V19646

Order No. VSD9809SB699

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Improvement of Reinforcement of Slider Lock Function

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN	103	VSD9606M501A	H8TKA0001
AJ-D800E/EN	63	VSD9708M606A	H8TKA0001

EVF Assembly

To improve the reinforcement of the Slider Lock function, the EVF Attachment Assembly is changed as shown below.

*** Note ***

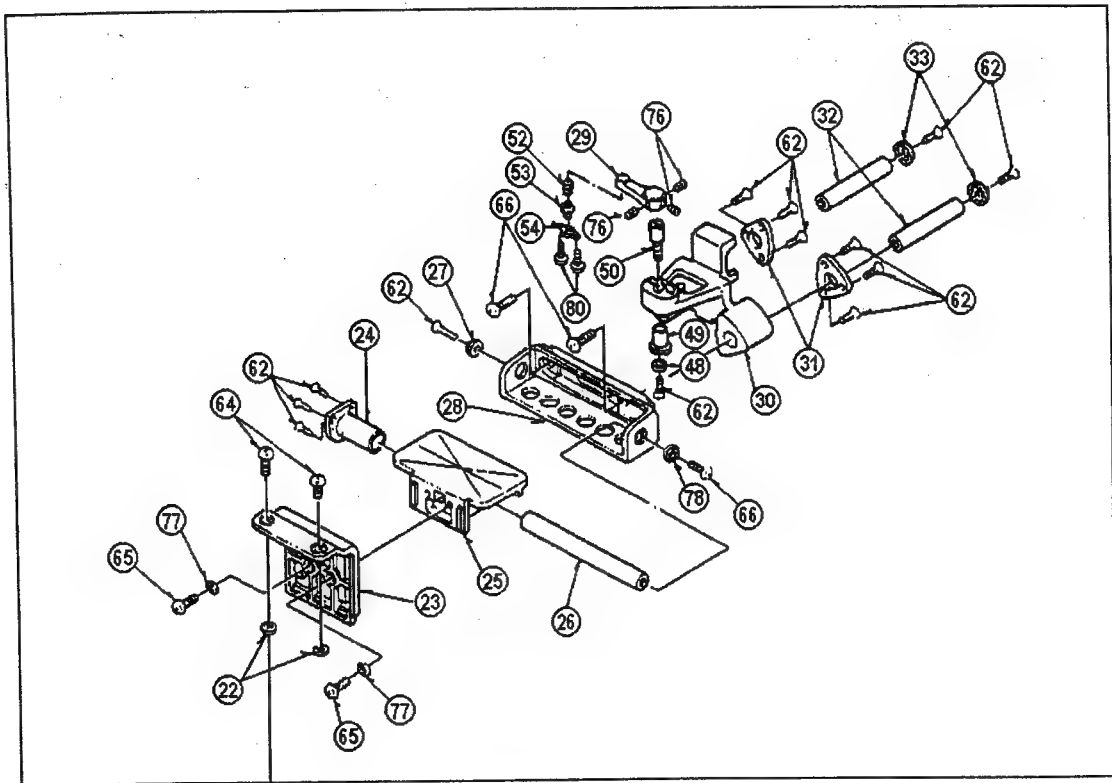
The following parts as shown below are replaced at the same time.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
23	VGM1267	VGM1458	LOCK BASE	1	
24	VDB1393	—	BUSHING	1→0	
25	VGM1266	VGM1457	LOCK TABLE	1	
26	VMS5862	VMS6274	SHAFT (B)	1	
27	VGQ3989	—	SHAFT STOPPER	1→0	
28	VGM1265	VGM1456	PLATE (B)	1	
29	VGU7076	VGU7714	LOCK LEVER	1	
30	VGM1264	VGM1455	PLATE (A)	1	
31	VDB1392	—	BUSHING A	2→0	
32	VMS5861	VMS6273	SHAFT (A)	2	
33	VGQ3989	—	SHAFT STOPPER	2→0	
53	VGQ4181	—	LOCK SOCKET	1→0	
62	XQS2+A6FZ	—	SCREW	12→0	
65	XSB3+8FZ	XSB3+8VZ	SCREW	5	
66	XSB4+8FZS	XSB5+8VCK	SCREW	3	
81	—	XUC2FP	E-RING	0→1	
90	—	VMS6275	EVF LOCK SHAFT	0→1	
91	—	VYQ1638	EVF ATTACHMENT ASS'Y	0→1	

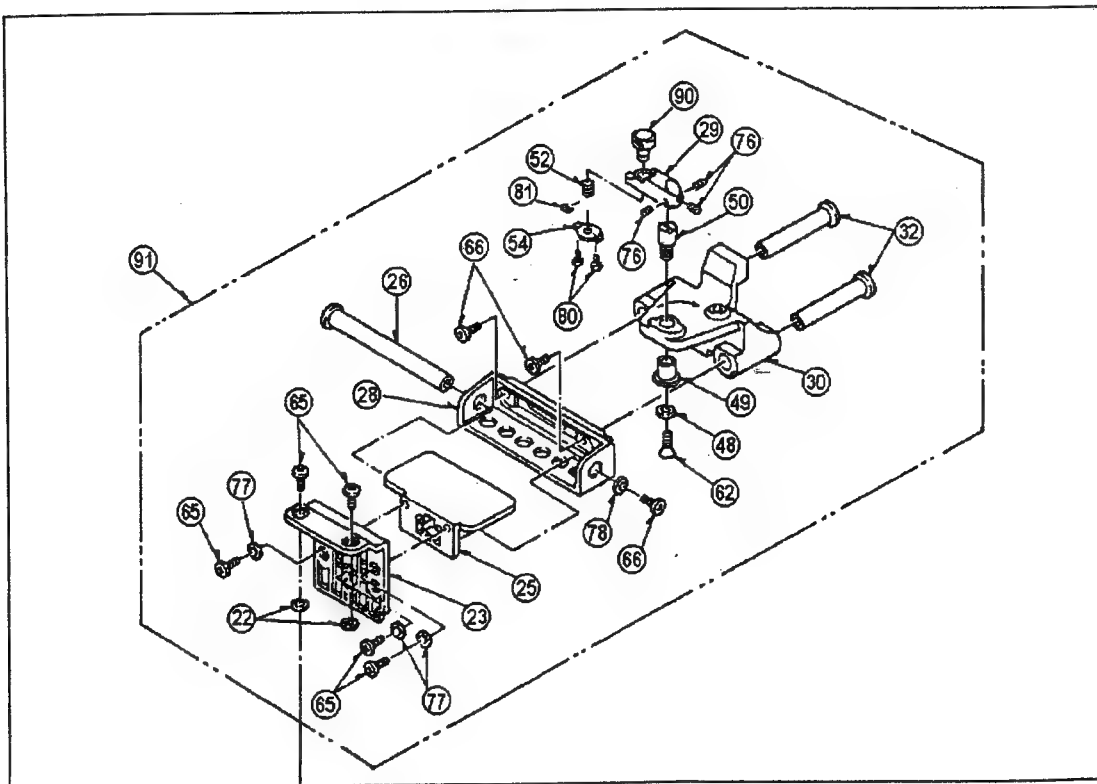
C3 208TM3847

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Changed



Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Software Version Up Grades

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D800E/EN	70	VSD9708M606A/B	F8TKA0001

Board : Camera System Control (VEP26074D)

The following software has been up-dated to add the functioning of the VTR.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
IC3502	VSI2480D	VSI2480E	CAM SYSCON DATA PROM Ver. 1.5	1	
IC3505	VSI2481C	VSI2481D	CAM SYSCON PROM Ver. 1.4	1	

< TEST MENU >

☒ DATA ROM IC3502 : 1.5 6955 VTR SYSCON IC6006 : 1.3 DE1E
☒ CAM SYSCON IC3505 : 1.4 4732

The marked (*) versions are the devices which have been changed from this software revision.

< Improvement of Performance >

1. When the irregular signal is input to GENLOCK IN, data may be broken. It is improved.

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V20467

Order No. VSD9810SG623

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Improvement of H Shading Specification

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D800E/EN	71	VSD9708M606A/B	F8TKA0001

Board : Camera System Control (VEP26074D)
Pre Process (VEP23278B)

Symptom : H shading may be out of specification.

Cause : H shading compensation does not work correctly.

Remedy : To improve the H shading specification, the digital dark shading compensation is optimized. The following modification is performed.

*** Note *** When this modification is performed, the CAM SYSCON PROM IC3502 and IC3505 must be up-graded at the same time as follows. Please refer to the Technical Bulletin No. VSD9810SG622.

IC3502	VSI2480E	Ver. 1.5
IC3505	VSI2481D	Ver. 1.4

< Pre Process Board >

1). Resistor R3410 is changed from 1/16W, 56K Ω to 1/16W, 47K Ω on the foil side.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
R3410	ERJ3RBD563	ERJ3RBD473	M. RESISTOR CH 1/16W 47K	1	

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
R3410	SCM-11	E-4 (3/5)	CBA-3	C-3 (F)

< Camera System Control Board >

1). Resistor R3609 is changed from 1/16W, 15K Ω to 1/16W, 30K Ω on the foil side.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
R3609	ERJ3GEYJ153	ERJ3RBD303	M. RESISTOR CH 1/16W 30K	1	

Ref. No.	Schematic Diagram		P.C. Board	
	Page	Area No.	Page	Area No.
R3609	SCM-19	A-5 (4/5)	CBA-5	C-1 (F)

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V20467
 10234/033021 V01.0 8
 V21613/031032 1.4

Order No. VSD9811SB709

Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Waterproofing EVF

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN	113	VSD9606M501A	L8TKA0001
AJ-D800E/EN	76	VSD9708M606A	L8TKA0001

EVF Assembly

Symptom : Picture may not be appeared when the View Finder is left to be turning the Eye Piece toward the upside.

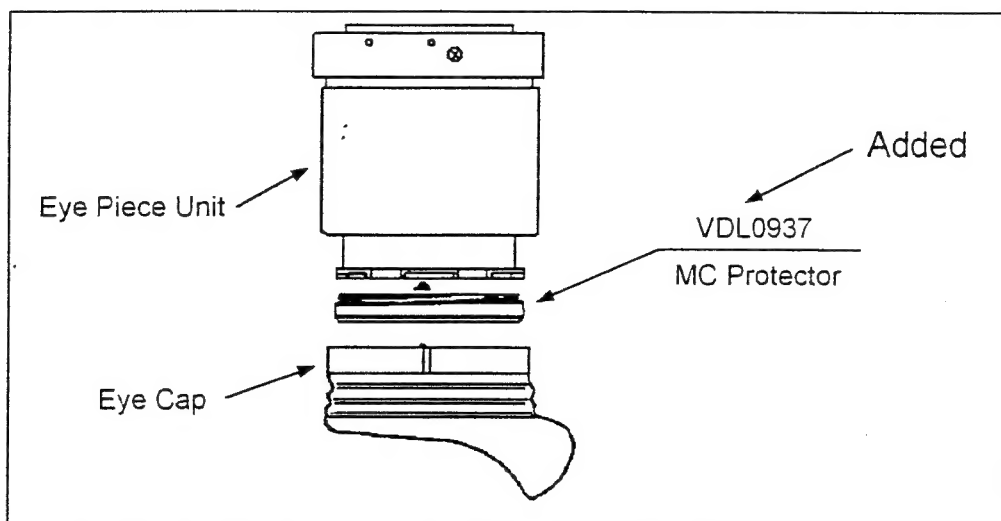
Cause : Water may come into the EVF through the Eye Piece Unit.

Remedy : To prevent it, the MC Protector (VDL0937) is added to the Eye Piece Unit as shown below.

< Installation Method >

- 1). Remove the Eye Piece Unit.
- 2). Mount and secure the MC Protector with the 52mm thread to the Eye Piece Unit as shown below.

Part Number					
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	Remarks
92	—	VDL0937	MC PROTECTOR	0→1	



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Technical Bulletin

Supplement to the Service Manual

Broadcast Product

Subject : Addition of Screw Adhesive

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AJ-D700E/EN	124	VSD9603M501A/B ✓	I9TKA0001
AJ-D700AE	2	VSD9909M910A/B ✓	I9TKA0001
AJ-D400E	4	VSD9903M004A/B ✓	I9TKA0001
AJ-D800E/EN	86	VSD9708M606A/B ✓	I9TKA0001
AJ-D800AE	2	VSD9909M910A/B ✓	I9TKA0001

Frame Assembly (1)
Frame Assembly (2)
EVF Assembly

V17728# 1033021
V25223# 2029034
V24553# 1017171
✓ V20161# 1031032
V25223# 2029034 *clappelt!*

Symptom : The screws on the Frame Assembly (1), (2) and EVF Assembly sections may be loosened.

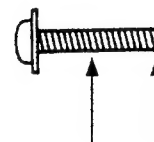
Remedy : Screw adhesive is applied to the screws on the Frame Assembly (1), (2) and EVF Assembly sections.

- Regarding the locations of the adhesive application to the screws on the Frame Assembly (1), (2) and EVF Assembly sections, refer to the next page.
- Specification of screw adhesive application

* Approx. 0.02g of the adhesive must be applied to the surface of the thread from the tip to the half of the thread section.

Note

After applying the adhesive, check that it covers the visible area on the thread.



Apply adhesive to the half of the thread section.

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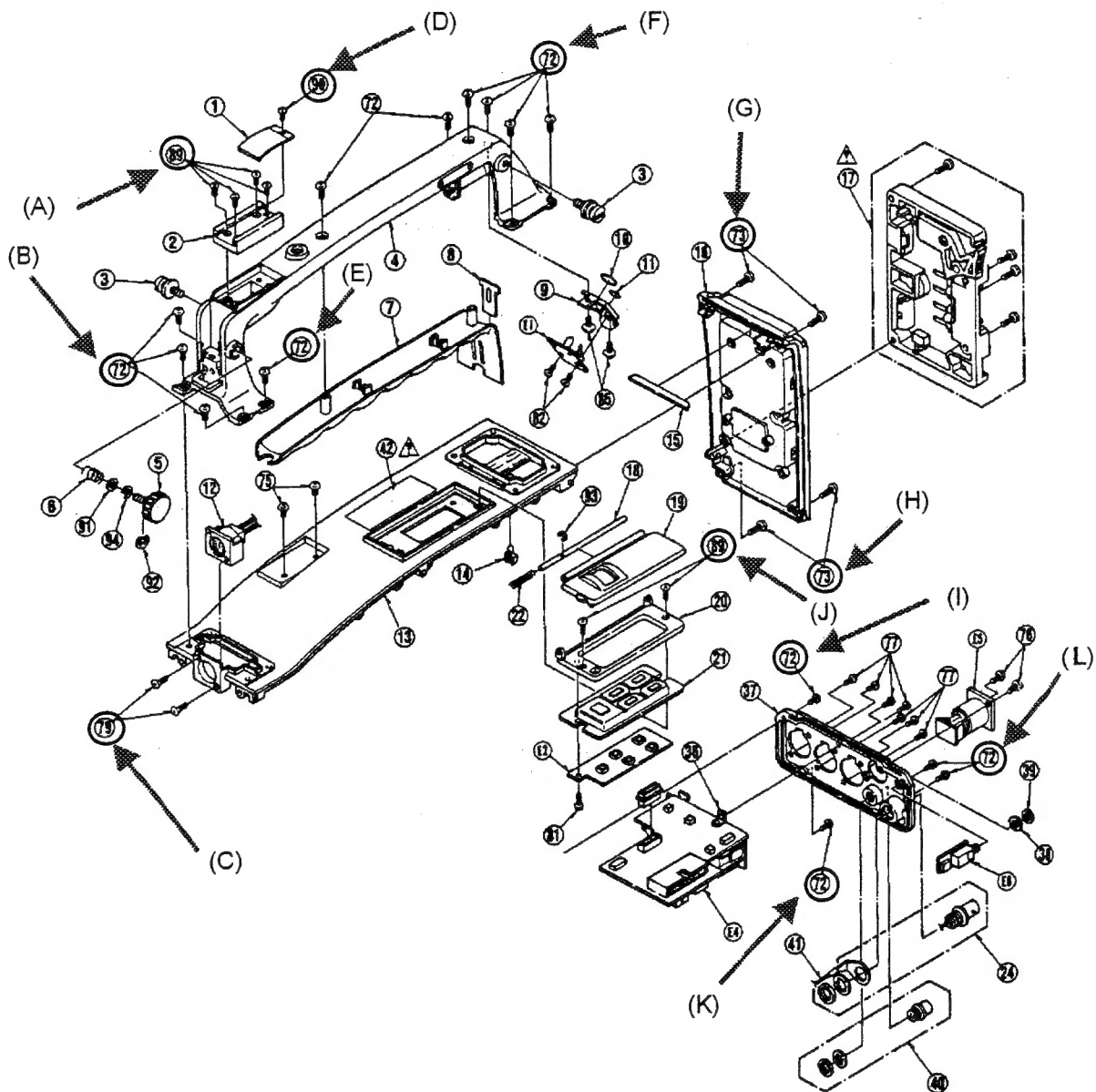
Adhesive Application Positions

- 1) Frame Assembly (1) ... 25 positions
- 2) Frame Assembly (2) ... 6 positions
- 3). EVF Assembly 1 position

Reference Exploded Views of Adhesive Application Locations

* As per the Exploded View of Service Manual

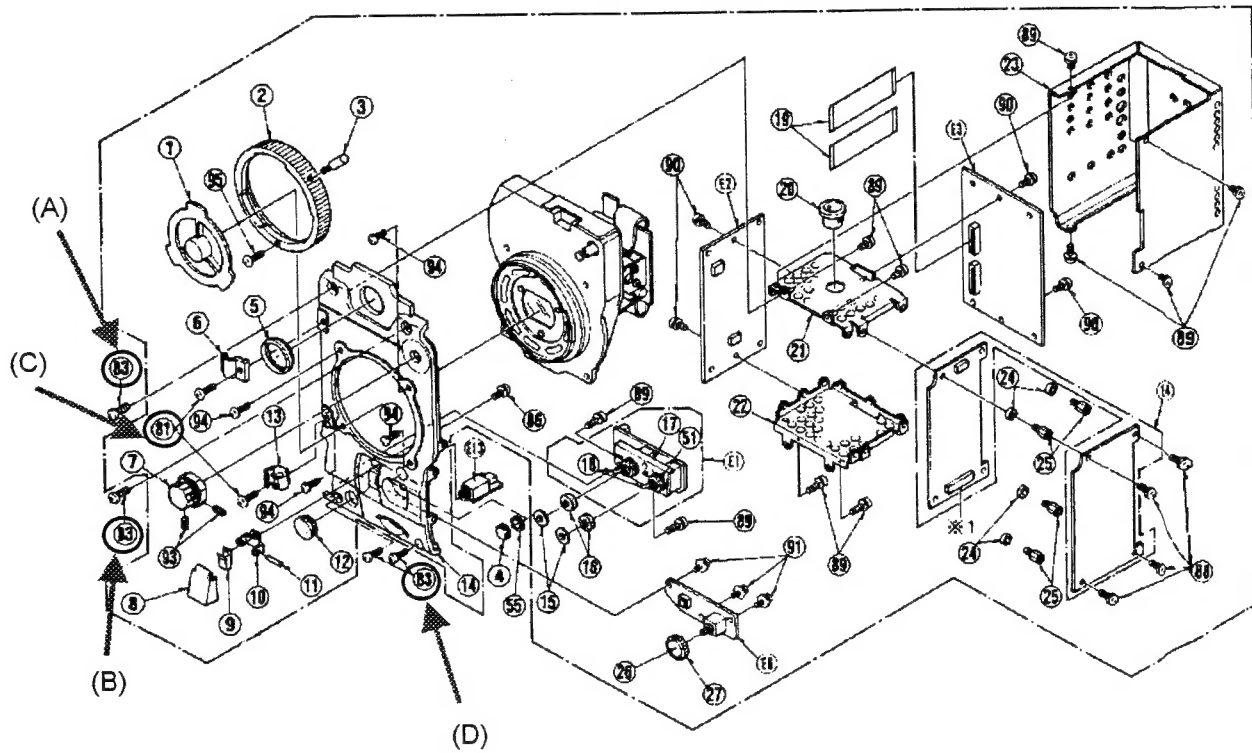
- 1). Frame Assembly (1)
(Application locations)
A (X4), B (X3), C (X2), D (X1), E (X1), F (X4), G (X2), H (X2), I (X1), J (X2), K (X1), L (X2)



Note: AJ-D800E/EN and AJ-D800AE are not applied the screw adhesive to "D" portion because of no use of the Leaf Spring (Reference No. <1>).

2). Frame Assembly (2)
(Application locations)
A (X1), B (X1), C (X2), D (X2)

A (X1), B (X1), C (X2), D (X2)



3). EVF Assembly
(Application location)
A (X1)

A (X1)

